1999–2000
Catalog
Effective Fall 1999

Changing lives one student at a time.

Disclaimer: Please Note

Effective summer 1997, Central Piedmont Community College, along with all colleges in the North Carolina Community College system, moved from a quarter to a semester calendar for instructional delivery. As part of this transition, all courses and programs offered by CPCC have been reviewed and revised. The information in this Catalog is presumed correct at the time of printing. However, the reader should be aware that the programs, regulations, policies, and other information contained in this Catalog are subject to change without notice. If you have questions about any Catalog information and are a CPCC student, please contact your faculty advisor, program chair, or instructor. For other inquiries or clarification, please contact the Office of the Vice President for Instruction, CPCC, P.O. Box 35009, Charlotte, NC 28235-5009.

Central Piedmont Community College

Directory

General College Information

(704) 330-2722   (704) 330-CPCC
Mondays - Fridays: 8:00 a.m. to 5:00 p.m.
An Automated Information Attendant is Available After Hours.

Please see the White Pages in the Charlotte Telephone Directory for specific CPCC listings.

Welcome Center Hours

Central Campus

Mondays & Tuesdays: 7:30 a.m. to 7:00 p.m.
Wednesdays & Thursdays: 7:30 a.m. to 6:00 p.m.
Fridays: 7:30 a.m. to 5:00 p.m.

Hours are expanded during Registration and the first two weeks of each term.

College Mailing Address

P.O. Box 35009, Charlotte, NC 28235-5009

College Internet Address

www.cpcc.cc.nc.us

College Delivery

1201 Elizabeth Avenue, Charlotte, NC 28204

College Locations

Central Campus — (704) 330-2722 — 1201 Elizabeth Avenue, Charlotte NC 28204

North Campus — (704) 330-4100 — 11930 Verhoeff Drive, Huntersville, NC 28078

South Campus — (704) 330-4200 — 2800 Campus Ridge Road, Matthews, NC 28105

Southwest Campus — (704) 330-4400 — 315 West Hebron Street, Charlotte, NC 28273

City View Center — (704) 330-6658 — 1609 Alleghany Street, Charlotte, NC 28208

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Notes

Changes
• CPCC reserves the right to change its regulations, policies, fees, and programs without notice.

CPCC Catalog and CPCC Class Schedules
• Not all courses in this Catalog are offered each term.
• **Class Schedules, listing times and locations of classes, are distributed in Mecklenburg County approximately six weeks prior to the beginning of each term.**
• Catalogs and Class Schedules may be obtained at the Welcome Center on the Central Campus, at City View Center, or at any other CPCC campus.

Equal Opportunity/Affirmative Action
In compliance with federal law, including the provisions of Title IX of the Education Amendments of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, and the Americans With Disabilities Act. Central Piedmont Community College does not discriminate on the basis of age, color, ethnic or national origin, handicap, military service, race, religion, or sex in its administration of education policies, programs, or activities; its admissions policies; scholarship and loan programs; or employment. Inquiries or complaints should be directed to the Director of Equal Opportunity, Room 513, Terrell Administration Building, (704) 330-6424.

Open Door Policy
CPCC has an open-door admission policy for applicants who are high school graduates or who are at least 18 years of age. Admission to the College is open without regard to race, creed, disability, national origin, sex, or age to any student who meets the graduation or age standard.

Some degree programs have specific requirements for admission. These requirements are available from the Division Director or a Program Counselor.

Tuition
Tuition is set by the North Carolina State Board of Community Colleges and is subject to change without notice.

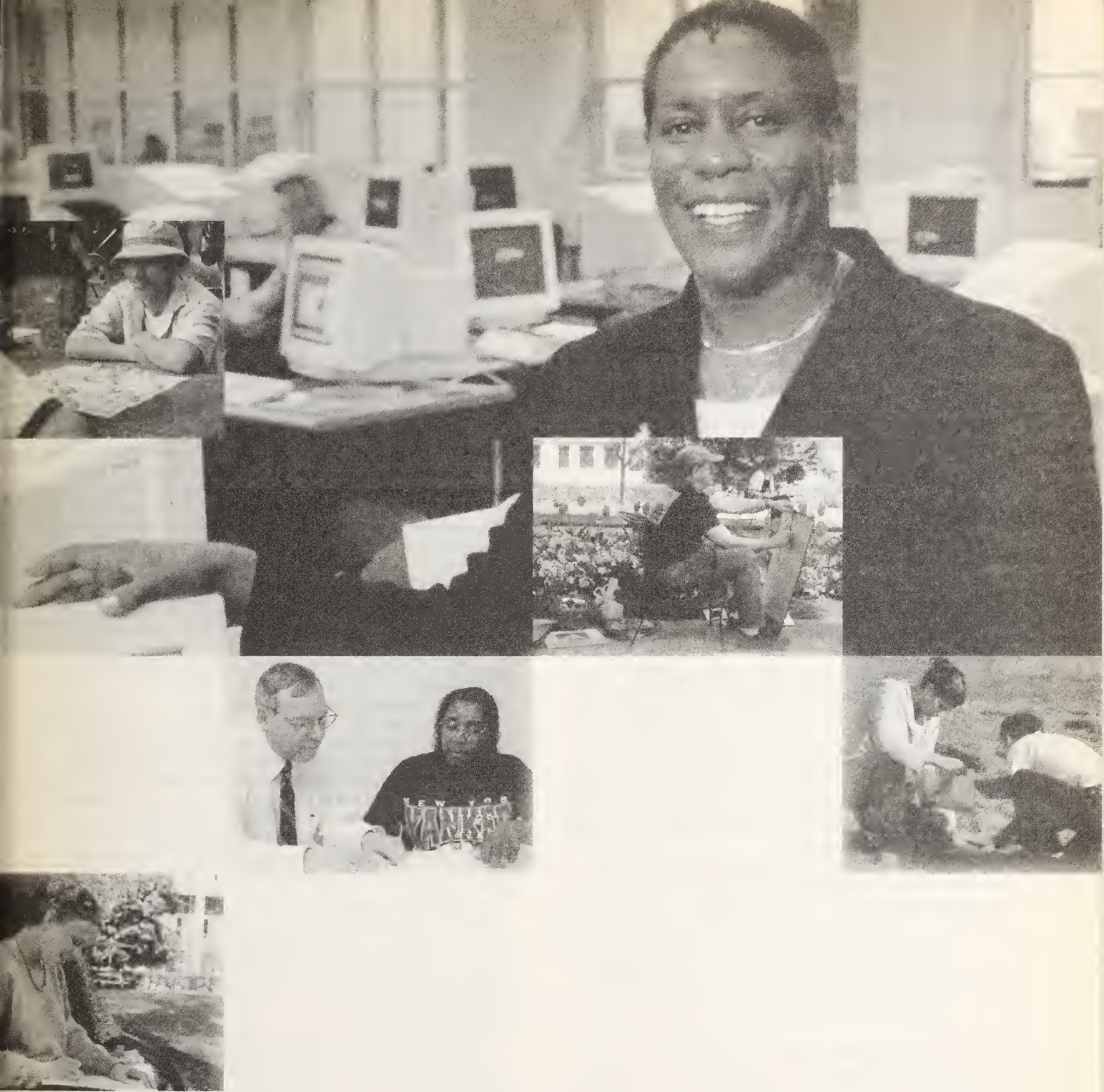**CPCC is an equal opportunity institution.**

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Parking Instructions

- Bring at least 4 quarters or $1 bill or a parking card (available in the CPCC bookstore or business office for $45 per semester). You will need them to get out of the lot.

- Park only within lined spaces in the appropriate (staff/student) lot.

- Parking in a handicapped parking space without a handicapped placard is illegal. Violators will receive a $100 City of Charlotte ticket. Contact the NC Division of Motor Vehicles for an application for a placard.

- Visitor Parking Only: If you plan to park in Lot T, you must be a visitor and not a student presently enrolled.

Parking Lots

Deck A: Enter right only off Elizabeth Ave. going toward Independence Blvd.

Deck B: Enter right only off Fourth St. Usually fills by 9 a.m.

Lot C: Enter left or right off Elizabeth Ave. Usually fills by 9 a.m.

Lots D-E: Enter right off Kings Dr. (2 entrances). Usually fills by 7:30 a.m.

Lot F: Enter left or right off Armory Dr. Usually fills by 9 a.m.

Lot G-I: Enter left or right off Seventh St. Usually fills by 10 a.m.

Lot H: Enter left or right off Armory Dr. Usually fills by 8:30 a.m.

Lot J: Enter right off Armory Drive from Independence Blvd. Usually fills by 8 a.m.

Lot K: Enter left or right off Elizabeth Ave. Usually fills by 10 a.m.

Lot L: Enter off Cherry St. coming from Independence Blvd or 3rd Street. Usually fills by 8:30 a.m.

Lots M, N, O, P, Q, R: Faculty and staff parking only.

Lot S: Parking by special permit only. Enter right only off Elizabeth Ave. onto Pease Lane.

Lot T: Visitor parking only. No student parking. Enter right off Kings Dr. or Elizabeth Ave.

A, B .... Student Parking Decks (Handicapped, Motorcycle)
C, D, E, F, G, H, I, J, K, L ... Student Parking
M .... Faculty/Staff Parking Deck (Includes Handicapped)
N, O, P, Q, R ...... Faculty/Staff (Includes Handicapped)
S .... Visitor (by Permit) and Handicapped
T .... Visitor (includes Motorcycle)
Ⓑ .... Bus Stop
✆ .... Security/Emergency Phone

Student Cost (All Gated Lots): $1.00 (4 Quarters or a $1.00 Bill) or Parking Card ($45.00/semester, $25.00/summer term at bookstore/business office) Rev. 7/97

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Note: All student parking lots generally have spaces available after noon.

Mission

Mission Statement

Central Piedmont Community College

Purpose

Central Piedmont Community College is an innovative and comprehensive public two-year college with a mission to advance the life-long educational development of adults consistent with their needs, interests, abilities, and efforts, and to strengthen the economic, social, and cultural life in the Charlotte-Mecklenburg region of North Carolina.

The College accomplishes this purpose by providing high-quality, flexible educational programs and services which are academically, geographically, and financially accessible, and which meet individual and community needs. This purpose requires a fundamental commitment to teaching excellence and a supportive, caring student environment.

History

In 1963, Mecklenburg College and the Central Industrial Education Center were merged to establish Central Piedmont Community College, one the first of the 58 colleges in the NC Community College System. The substantial increase in the educational and training needs of the community since 1963 have required commensurate expansion of the College's instructional programs and facilities.

In 1963, there were 23 degree and diploma programs; now there are more than 60, along with a comprehensive literacy program and an extensive array of corporate and continuing education offerings. In 1963, the College occupied the structures formerly used by Charlotte's Central High School. Recognizing that the Central Campus is experiencing maximum utilization, the College trustees in 1989 authorized the development of comprehensive campuses in other areas of Mecklenburg County to accommodate the ever increasing needs of the burgeoning Charlotte-Mecklenburg community.

CPCC's standing among institutions of higher learning has kept pace with the development of its programs and facilities. It was fully accredited to award associate degrees, diplomas, and certificates in 1969 by the Commission on Colleges of the Southern Association of Colleges and Schools. Today, many of its programs have special accreditation as well. In 1969, it became a member of the League for Innovation in Community Colleges and has been identified as one of the top five of the nation's two-year colleges in teaching excellence.

The Educational Vision Of CPCC

In 1993, the CPCC Board of Trustees adopted the following vision statement: As Charlotte's premier workforce development resource, CPCC intends to become the national leader in workforce development.

The College community envisions a future for this growing metropolitan area where there is a strong sense of community and life is rewarding - a future built upon the full participation and success of all citizens and the best possible use of human, financial, and natural resources:

We will take a vigorous leadership role in identifying and addressing the issues which are pivotal in making this vision a reality, for we recognize that our present and future are closely entwined with the health and vitality of the greater Charlotte-Mecklenburg region.

Central to our effort is maintaining excellence as we adapt our comprehensive programs and services to meet the educational needs of a constantly changing, technically advanced, interdependent, and complex world. More than ever before, students need advanced communication and computation skills and the mental receptiveness to acquire and apply knowledge throughout their lives. They also need to develop attitudes which support personal development and ethical understandings which will build community, both regional and global. CPCC's leadership role requires us to explore new academic and administrative paths in the way we educate and support our students. As we grow and change, we will reflect on our efforts and demonstrate accountability for the proper and wise use of resources. We will pursue new and better ways to assess student learning and experience so that both we and our students can improve our effectiveness.

CPCC's educational vision will be realized in an increasingly diverse community and world. Although diversity presents many challenges, we perceive diversity as a strength. Our students mirror the community, coming to us with differences in educational preparedness and intent, demographic and socio-economic backgrounds, and cultural/ethnic influences. In honoring our commitment to the open-door concept, we are determined to provide the appropriate support which gives meaning to access.

We realize we cannot achieve this vision alone; partnerships with other institutions, in our area and beyond, are critical factors in our success. We believe that building a teaching and learning community in its broadest and best sense, encompasses a concern for the whole, for integration and collaboration, for openness and integrity, for inclusiveness and self-renewal.

Functional Areas

To carry out CPCC's mission, the College provides educational programs and services in the following areas:

● **Business, Community Service, Health, and Technology Programs**

The cornerstone of the Community College System in North Carolina is the preparation of students for a first career, career change, and career advancement to meet individual goals and regional needs. The College provides career programs in a broad range of occupational areas. Associate in Applied Science degrees and shorter term diploma and certificate programs are offered. In support of these programs, the College will continue to form major partnerships with business and industry, fueled by the advances in technology.

AAS degree graduates develop marketable employment skills and college-level academic skills. In some cases, courses within the programs are transferable to colleges and universities. Non-degree seeking students reach other career goals such as updating job skills, career advancement, and re-entry into the work force with marketable skills.

● *Transfer Programs*

From its inception, the College has provided the first two years of study in the arts and sciences and pre-professional fields for those students who wish to transfer to four-year colleges and universities. Students are able to transfer courses or an associate degree to four-year colleges and have the background and skills to succeed in their further studies. Graduates have a foundation in their areas of specialization, have college-level academic skills, and have successfully completed the general education core curriculum.

● *A Comprehensive Articulation Agreement*

In 1996, the North Carolina Community College System and the University of North Carolina developed a comprehensive articulation agreement to address the transfer of North Carolina Community College students to the constituent institutions of the University of North Carolina system. Graduates with the AA and AS degrees who complete the agreed general education transfer core will receive junior status and will be considered to have fulfilled the institution-wide, lower division, general education

requirements for any University of North Carolina institution if admitted to the university.

• *Queens Bound Articulation Agreement*

Queens Bound is a unique opportunity for highly motivated CPCC students working toward AA, AS or AFA degrees to continue at Queens College to earn Bachelor's Degrees. Queens Bound students who enroll full time in the College of Arts and Sciences at Queens are guaranteed up to $5,000 in scholarship assistance.

• *Basic Skills Programs*

Expanding higher education opportunities to populations previously underserved was a founding principle of the community college movement. This open-door policy mandated basic skills programs for underprepared students.

Adult basic education programs provide basic literacy instruction and functional living skills. Adult high school and GED programs assist students in completing high school. Developmental education provides classes for high school graduates whose placement tests indicate that they need further development of basic skills in reading, English, math, and science. Although students in these programs have very diverse goals and some students stop short of entry into college-level programs, all basic skills programs are designed to provide the necessary skills and confidence to be successful in the next level of education.

• *Corporate and Continuing Education*

The economic development of the Charlotte-Mecklenburg region is the major role of Corporate and Continuing Education. The College provides programs and services specifically designed to meet the training and re-training needs of business and industry and other area organizations. Individual career goals for the general adult population are also met through CCE offerings. The formation of dynamic partnerships with community organizations and business and industry is often a critical component in meeting these needs.

The College also provides programs and services for the general adult population which stress life-long learning in the areas of academic, cultural, social, recreational, and personal development.

• *Community Service*

Central Piedmont's community service programs are widely known for their responsiveness and high quality in the Charlotte-Mecklenburg region. The College provides a wide range of cultural and artistic events, speakers, professional and technical assistance, and civic education, as well as the sharing of College facilities with the local community.

• *Student Development and Support*

Student development services is committed to providing quality educational support to ensure student success for the diverse student population. The College provides services for recruitment and enrollment, for academic advising, for career and personal counseling, for student activities, and for special populations including first-generation college students, students with disabilities, and international students. The faculty plays a supportive role in these endeavors.

Students receive timely and accurate information about College programs and services and receive assistance in their academic, career, and personal development. The degree to which student support services are effective has a major impact on student success.

• *Instructional Development and Support*

CPCC is a leader among community colleges in instructional development and support. Experimentation and innovation in instruction and the use of alternative instructional delivery systems remain major initiatives.

The College provides support for instructors to experiment with non-traditional modes of teaching and learning through classroom research, through the use of technology incorporated into the classroom, and through alternative delivery systems and scheduling.

The instructional support area provides library, media, and learning laboratory services which give support to instructors and students to enhance the teaching and learning process.

• *Administrative Support*

CPCC administration provides effective leadership by setting the tone and direction and by granting employees the authority and resources to carry out their duties.

The College efficiently and effectively expends its resources and is committed to maintaining a leadership role in its utilization of personnel and facilities. The College provides the organizational support areas of institutional research and planning, staff and resource development, and marketing and community relations. Effective administrative processes allow the College to focus on its primary mission of providing educational programs and services.

Institutional Values

Shared values and clear expectations affect how well CPCC succeeds in accomplishing its mission. Based upon this belief, we hold the following institutional values:

• *Worth and Dignity of the Individual*

We believe that each person is important. We appreciate the diversity in the students we serve and in ourselves. We are committed to the policies of equal opportunity and affirmative action for employees. We treat others with respect and fairness.

• *Individual Growth and Development*

We value the talent and abilities of our faculty and staff. We try to bring out the best in our students and ourselves. We believe that meaningful and productive work encourages individual initiative and offers fulfillment. We assist student growth toward productive citizenship, self-direction, and personal responsibility. We encourage professional development and growth for all employees.

• *Accessibility*

We recognize that many diverse barriers hinder student access to educational opportunities. We are committed to recruit and provide services to populations traditionally underserved by higher education because of these barriers. In this endeavor, campus expansion, innovation and technology play key roles.

• *Excellence*

We value a job well done and believe that each individual strives for excellence. We aim for the highest level of professionalism, competence, and productivity as standards for our college. We aim for responsible participation and high achievement as standards for our students.

• *Innovation*

We value the flexibility and diversity of our human resources and realize that there are varied approaches in carrying out our mission. We promote innovation and responsible experimentation.

• *Community*

We believe that a strong and vibrant community can only be built on the full participation and success of all of its citizens within a healthy social and economic environment. This concept encompasses our local community and the larger state, national, and global communities. We value relationships with other institutions in our region and beyond and recognize the need to work together and avoid unnecessary duplication of effort in our common goal to reach the total population.

• *Accountability*

We recognize that we hold the institution in trust for the citizens and employers of Charlotte-Mecklenburg, serving as stewards for our human, financial, and physical resources. We are accountable for our use of these resources to reach our mission. We document our progress in an on-going program of institutional effectiveness and use the results of assessment to improve programs and services.

Accreditation

Central Piedmont Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; Telephone number 404-679-4501) to award associate degrees, diplomas and certificates. The College is also accredited by the following organizations:

Technology Accreditation Commission of the Accreditation
    Board for Engineering and Technology
    111 Market Place, Suite 1050, Baltimore, MD 21202
    Telephone 410-347-7700
        Computer Engineering Technology
        Electrical Engineering Technology
        Electronics Engineering Technology
        Manufacturing Engineering Technology
        Mechanical Engineering Technology
American Bar Association
    Paralegal Technology
American Dental Association Commission on
    Dental Accreditation
        Dental Hygiene
        Dental Assisting
Commission on Accreditation in Physical Therapy Education
    of the American Physical Therapy Association
        Physical Therapist Assisting
Commission on Accreditation of Allied Health
    Education Programs (CAAHEP)
        Cytotechnology
Commission on Accreditation of Allied Health Education
    Programs (CAAHEP) on Recommendation of the
    Committee on Accreditation for Health Information
    Education
        Health Information Technology
Commission on Accreditation of Allied Health Education
    Programs (CAAHEP) on Recommendation of the
    Committee on Accreditation for Medical Assistant
    Education
        Medical Assisting
Committee on Accreditation for Respiratory Care
        Respiratory Care Technology
National Accrediting Agency for Clinical Laboratory
    Sciences (NAACLS)
        Medical Laboratory Technology
National Automotive Technician Education Foundation
        Automotive Technology
        General Motors Automotive Service
            Education Program
        Toyotal Technical Education Network
            Program
        Cooperative Automotive Service Technology
National Accrediting Agency for Clinical
    Laboratory Sciences
        Medical Laboratory Technology
National Board for Certified Counselors
        Human Services Technology
        Early Childhood
        Interpreter Training
North Carolina State Board of Community Colleges
North Carolina State Board of Nursing
        Associate Degree Nursing
North Carolina Criminal Justice Education and
    Training Commission
        Basic Law Enforcement Technology

Memberships

Central Piedmont Community College is a member of the following educational associations and agencies:

American Association of Community Colleges
American Association for Higher Education
American Council on Education
Charlotte Region Workforce Development Partnership
COMBASE
Community College Consortium
League for Innovation in the Community College
North Carolina Association of Community College Trustees
Southern Association of Colleges and Schools

Charlotte Area Educational Consortium

CPCC is a member of the Charlotte Area Educational Consortium which includes the following area higher education institutions:

Anson Community College, Polkton, NC
Barber-Scotia College, Concord, NC
Belmont Abbey College, Belmont, NC
Catawba College, Salisbury, NC
Catawba Valley Community College, Hickory, NC
Cleveland Community College, Shelby, NC
Davidson College, Davidson, NC
Gardner-Webb University, Boiling Springs, NC
Gaston College, Dallas, NC
Gordon-Conwell Theological Seminary, Charlotte, NC
Johnson C. Smith University, Charlotte, NC
Lenoir-Rhyne College, Hickory, NC
Livingston College, Salisbury, NC
Mitchell Community College, Statesville, NC
Pfeiffer University, Charlotte. NC
Queens College, Charlotte, NC
Rowan-Cabarrus Community College, Salisbury, NC
Stanly Community College, Albemarle, NC
University of North Carolina at Charlotte, Charlotte, NC
University of South Carolina at Lancaster, Lancaster, SC
Wingate College, Wingate, NC
Winthrop University, Rock Hill, SC
York Technical College, Rock Hill, SC

Among several Consortium activities is a cross-registration program that enables students to take certain courses not offered at CPCC at other Consortium schools.

For information, call (704) 330-6484.

CPCC Foundation, Inc.

The CPCC Foundation exists solely for the benefit of the College and its students.

The Foundation solicits gifts from individuals, corporations and foundations. These gifts are used for student scholarships, instructional equipment and other capital projects; for new program funds, innovation and recognition awards, and endowment funds plus a variety of other needs not met through traditional funding sources.

An annual CPCC Charlotte Skyline Run is sponsored by the Foundation. The Foundation also raises funds through an Automobile Donation Program. Additional ways to support the work of the Foundation include gifts of cash or securities, bequests and other estate plans. Contributions may be given outright or through a pledge program and extended over a period of time. They may be designated for specific programs and projects. Honorariums and memorial funds may be established.

All donations for the College should be directed to the Central Piedmont Community College Foundation, a 501(c)3 organization, qualified to receive tax deductible contributions. The address is:

    The CPCC Foundation, Inc.
    Post Office Box 35009
    Charlotte, NC 28235-5009
For more information, call (704) 330-6869.
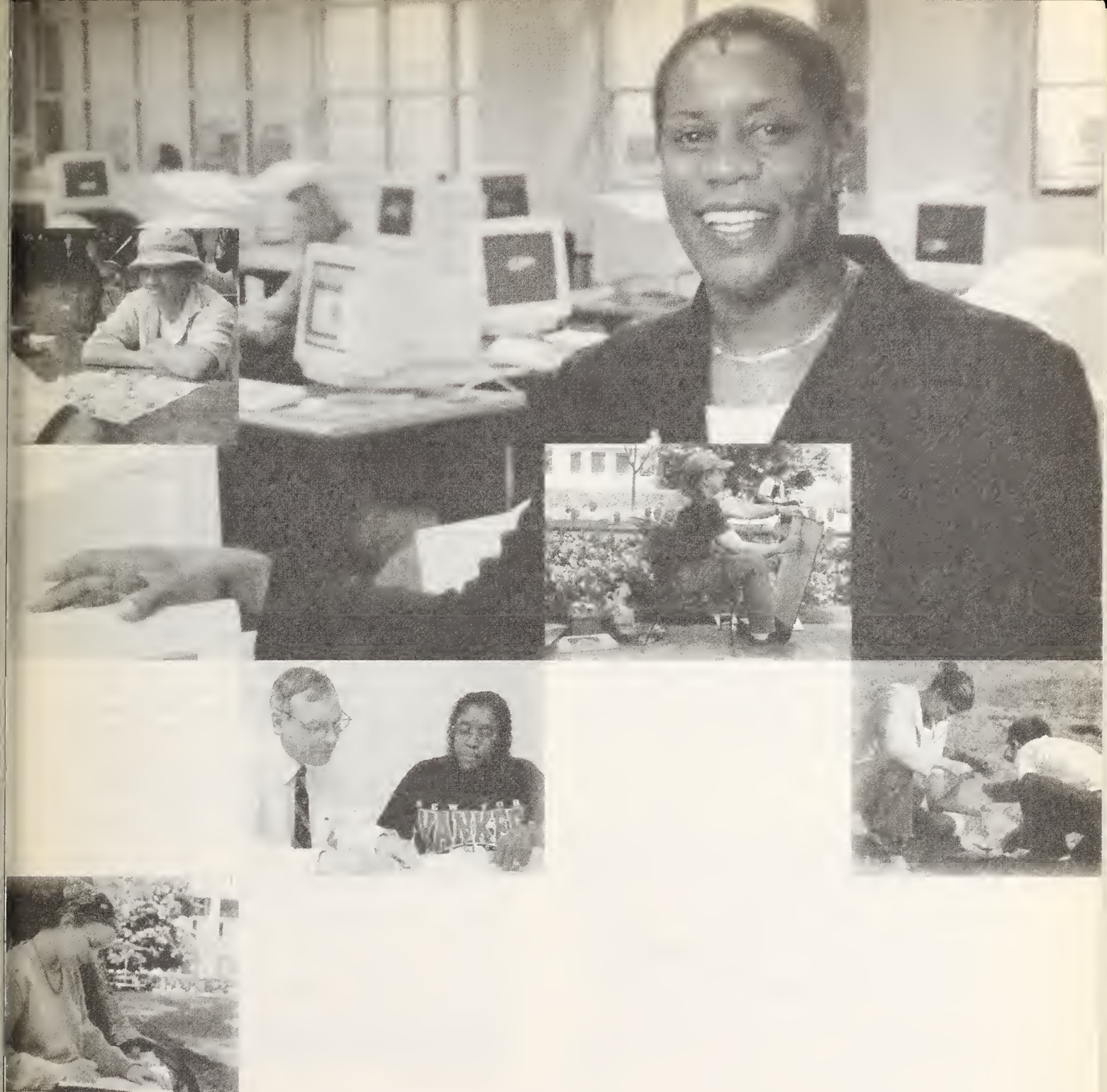
Facilities

Facilities

The College is supported by state, federal, and local funds to provide instruction, equipment, and laboratories for students at low tuition. CPCC's classes are held on the 35-acre Central Campus, North Campus, South Campus, Southwest Campus, City View Center, and at more than 200 neighborhood high schools, churches, office buildings, community centers, and other locations.

Locations off the Central Campus

• **NORTH CAMPUS**
(704) 330-4100
11930 Verhoff Drive
Huntersville

•**SOUTH CAMPUS**
(704) 330-4200
2800 Campus Ridge Road
Matthews

• **CITY VIEW CENTER**
(704) 330-6658
1609 Alleghany Street
Charlotte

• **SOUTHWEST CAMPUS**
(704) 330-4400
315 West Hebron Street
Charlotte

At any of the four College locations away from Central Campus, students can submit CPCC admissions forms, have college skills assessed, register for classes, pay tuition, buy books, attend classes and (depending on the facility) do lab work in accounting, business, advancement studies, and computer science. Each also has a library of telecourses and audio courses.

Evening classes at high schools are supported and coordinated through the Area Center Services Department. Classes at churches, community centers and other locations are coordinated through the divisions offering the classes.

Parking

Central Campus

The Central Campus includes paved and well-lighted parking areas. For the safety and protection of students, all campus parking decks and lots are randomly patrolled. Students may use any parking lot except those reserved for faculty, staff, and visitors. Access to student parking areas is controlled by "free in/pay out" gates which operate automatically. Parking access cards may be purchased in the College Bookstore and the Cashier's Office.

A parking brochure which explains parking locations and regulations on the Central Campus is available at the Welcome Center, the Student Life Center, and other various locations.

City View Center

The City View Center is a well-paved and well-lighted area. Students may use all parking lots.

North Campus

The North Campus is a well-paved and well-lighted area. Students may use all parking lots.

South Campus

The South Campus is a well-paved and well-lighted area. Students may use all parking lots.

Southwest Campus

The Southwest Campus is a well-paved and well-lighted area. Students may use all parking lots.

General College Information By Phone

(704) 330-CPCC (704-330-2722).

Drop-In Information Center

Visit the Welcome Center on the central campus to pick up information and materials about CPCC. Located on the second floor of the Garinger Building and accessible by ramp, the Center is open Monday and Tuesday from 7:30 a.m.-7:00 p.m.; Wednesday and Thursday from 7:30 a.m.-6:00 p.m.; Friday 7:30 a.m.-5:00 p.m. Welcome Center hours are extended during registration and the first two weeks of the semester.

Testing and Assessment Center

The Testing and Assessment Center is located on the Central Campus, second floor of the Garinger Building. The Center administers a wide variety of tests for instructional, placement, diagnostic, certification, licensure, and other special purposes. It also serves as a national center for administering the College-Level Examination Program (CLEP).

The Center is dedicated to serving faculty, students, and community testing needs. Its physically attractive atmosphere and quiet, low-key method of operation help students reduce their anxiety about taking tests. Tests on classwork are taken within time-frames designated by instructors. By using the Testing and Assessment Center for test administration, class time becomes available for individual conferences, group discussion, and other educational opportunities. Students receive more effective instruction, quicker feedback through faster scoring of tests, and more class time available for discussion by reducing the number of classroom hours given up for testing.

The Center is intended to help improve instructional effectiveness through more uniform student assessment and evaluation. It assists faculty in test development, administration, grading, analysis, and research.

Placement testing is offered at all campus locations. Applicants testing at the Central Campus may schedule an appointment through the Admissions Office, or by calling the Information Center at 330-CPCC. Students wanting to test at one of the area campuses should contact that campus directly to schedule an appointment.

The Testing and Assessment Center is open Monday through Thursday, from 7:30 a.m. until 8:00 p.m., with the last course test given out at 7:30 p.m. On Friday, the Center is open from 7:30 a.m. until 4:30 p.m., with the last course test given out at 3:30 p.m. Hours vary during semester breaks. The Center cannot accommodate children. As a courtesy to others, students are requested to turn off all electronic equipment such as pagers and cellular phones before entering testing areas. A bar coded CPCC photo ID is required for course testing.

For more information, call (704)330-6886, or visit us at the CPCC website.

Learning Resources Center
(The Richard H. Hagemeyer Learning Resources Center)

The Learning Resources Center is located in the center of Central campus and houses the Library, the College Without Walls, Distance Learning, and Area Center & Campus Services. Available resources include general campus and college information, books, periodicals, films, tapes, computer hardware and software, and electronic information access and retrieval. In addition, the Learning Resources Center provides instructional development, instructional television, teleconferencing, telecourses, photography, audio and television studios, and multimedia services to classrooms.

Library Services

Each campus library has a collection of print and non-print materials particularly suited to the objectives and programs of that location. Library resources include: the general book collection, reference books, bound and unbound periodicals, microforms, media, electronic indexes and full text databases. Each library provides equipment for viewing media and computers for accessing specialized electronic databases and internet resources. Each campus library provides research and bibliographic assistance, library instruction, internet instruction, tours, inter-library loan and reserves.

CAL is a computerized database of library holdings in all CPCC locations. This database can be accessed on any CPCC campus or from home through the library homepage. Material housed on one campus and needed at another campus is available within 24 hours via FAX or through campus courier service. Registered students, faculty and staff may check out materials from any campus library and may return books at any campus library.

Central Campus Library
    Location: Learning Resources Center
    Telephone: (704) 330-6885
    Hours: Monday-Thursday, 7:30 a.m. - 9:00 p.m.;
    Friday, 7:30 a.m. - 4:30 p.m.;
    Saturday 10:00 a.m. - 2:00 p.m.

North Campus Library
    Location: Public Safety Building, Room 120
    Telephone: (704) 330-4103
    Hours: Monday-Thursday, 7:30 a.m. - 9:00 p.m.;
    Friday, 7:30 a.m. - 11:30 a.m.

South Campus Library
    Location: Room 3103
    Telephone: (704) 330-4212
    Hours: Monday-Thursday, 7:30 a.m. - 9:00 p.m.;
    Friday, 7:30 a.m. - 4:30 p.m.;
    Saturday, 10:00 a.m. - 2:00 p.m.

Library Webpage
    A comprehensive description of the library, its resources and services can be found on the library's homepage (http://www.cpcc.cc.nc.us/library/home.htm.)

Auditorium

(The J. Norman Pease Auditorium)

Pease Auditorium, located within the Learning Resources Center, seats 478. It contains a theater stage, sound and lighting equipment, and accommodates classes, theater productions, concerts, lectures, and meetings.

CPCC Bookstores

Central Campus
The R. Powell Majors Central Campus Bookstore, located at 1210 Elizabeth Avenue, provides the largest selection of both new and used textbooks to support the College's educational mission and faculty/staff needs.

For textbook information, including prices, please access the internet at: bookstore.cpcc.cc.nc.us or you may call CHRIS at (704) 330-6970.

The Central Campus Bookstore is open Monday - Thursday, 7:30 a.m. - 7:30 p.m. and Friday, 7:30 a.m. - 4:30 p.m. Extended bookstore hours are scheduled at the beginning of each term to accommodate peak traffic. Hours during summer term, and when class is not in session, are subject to change. Please call 330-6587 for exact times.

The bookstore has new books, used books, supplies, and other course-related items needed by students. Special orders are gladly accepted. In addition the Bookstore carries CPCC imprinted apparel, software, greeting cards, magazines, candy, snacks, postage stamps, and various other items.

An ATM machine, a low cost copy machine, and laminating services are also located at this location.

Used books in good condition are purchased by the Bookstore daily. Buyback hours are during regular store hours.

For further information, please call (704) 330-6587.

Health Science Store - Central Campus

The CPCC Health Science Store is located on the corner of S. Independence and Elizabeth Ave. At this location all allied health students should purchase their textbooks. Both new and used textbooks are available. In addition, the CPCC Health Science Store has over 1,700 medical reference titles in stock, software and various other products related to the health sciences.

The Health Science Store is open Monday - Thursday, 9:00 a.m. - 6:00 p.m. and Friday, 9:00 a.m. - 4:30 p.m. Hours during summer term and when class is not in session are subject to change. For further information, please call (704) 330-5040.

South Campus
The CPCC Bookstore at South Campus is located on the second floor. Textbooks, both new and used, are available for all classes taught at the South Campus, as well as student supplies.

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Facilities

The South Campus Bookstore is open Monday - Thursday, 9:00 a.m. - 6:30 p.m. and Friday, 9:00 a.m. - 1:00 p.m. Hours during summer term and when class is not in session are subject to change. For further information, please call (704) 330-4233.

Southwest Campus

The CPCC Bookstore at Southwest Campus is located on the second floor, near the registration area. Textbooks, both new and used, are available for all classes taught at the Southwest Campus, as well as student supplies.

The Southwest Campus Bookstore is open at the beginning of each semester and at other times during the semester as needed. For further information, please call (704) 330-6649.

North Campus

The CPCC Bookstore at North Campus is located in the Claytor Building. Textbooks, both new and used, are available for all classes taught at the North Campus, as well as student supplies.

The North Campus Bookstore is open at the beginning of each semester and at other times during the semester as needed. For further information, please call (704) 330-4100.

Cityview Center

The Bookstore operation at Cityview Center is located in room 107. Textbooks, both new and used, are available for all classes taught at the Cityview Center, as well as student supplies.

The Cityview Center Bookstore is open at the beginning of each semester and at other times during the semester as needed. For further information, please call (704) 330-6658.

Chick-fil-A / Lil Dino

Central Campus

The CPCC Chick-fil-A and Lil Dino deli and grille are located on the first floor of the Van Every Building on Central Campus. Deli sandwiches, french fries, salads, soups, and a wide variety of snacks and beverages are available, as well as the standard Chick-fil-A menu. Both units are open Monday - Thursday, 7:00 a.m. - 7:30 p.m. and Friday, 7:00 a.m. - 2:00 p.m. Hours during summer term and when class is not in session are subject to change. For further information, please call 330-4140 (Chick-fil-A) or 330-5495 (Lil Dino).

South Campus

The CPCC Lil Dino deli is located on the first floor of the South Campus. Deli sandwiches, salads, soups and beverages are available. Since this is a new operation, hours will be determined by student population. For further information, please call 330-5495.

Vending Machines

Snacks, candy, and beverage machines are located at each campus. Refund guidelines are posted on each machine. Please call (704) 330-6649 to report problems with a vending machine, voice concerns or make suggestions.

Campus Copiers

Low cost copiers are located at each campus for student use. Machines will accept coins and/or debit cards. Refund guidelines are posted on each machine. Please call (704) 330-6502 to report problems with a copier, voice concerns or make suggestions.

Central Campus

Copiers are located in the Library, Student Life, and the Bookstore. A Debit card dispenser is located in the Library.

South Campus

A copier and debit card dispenser is located in the library.

North Campus
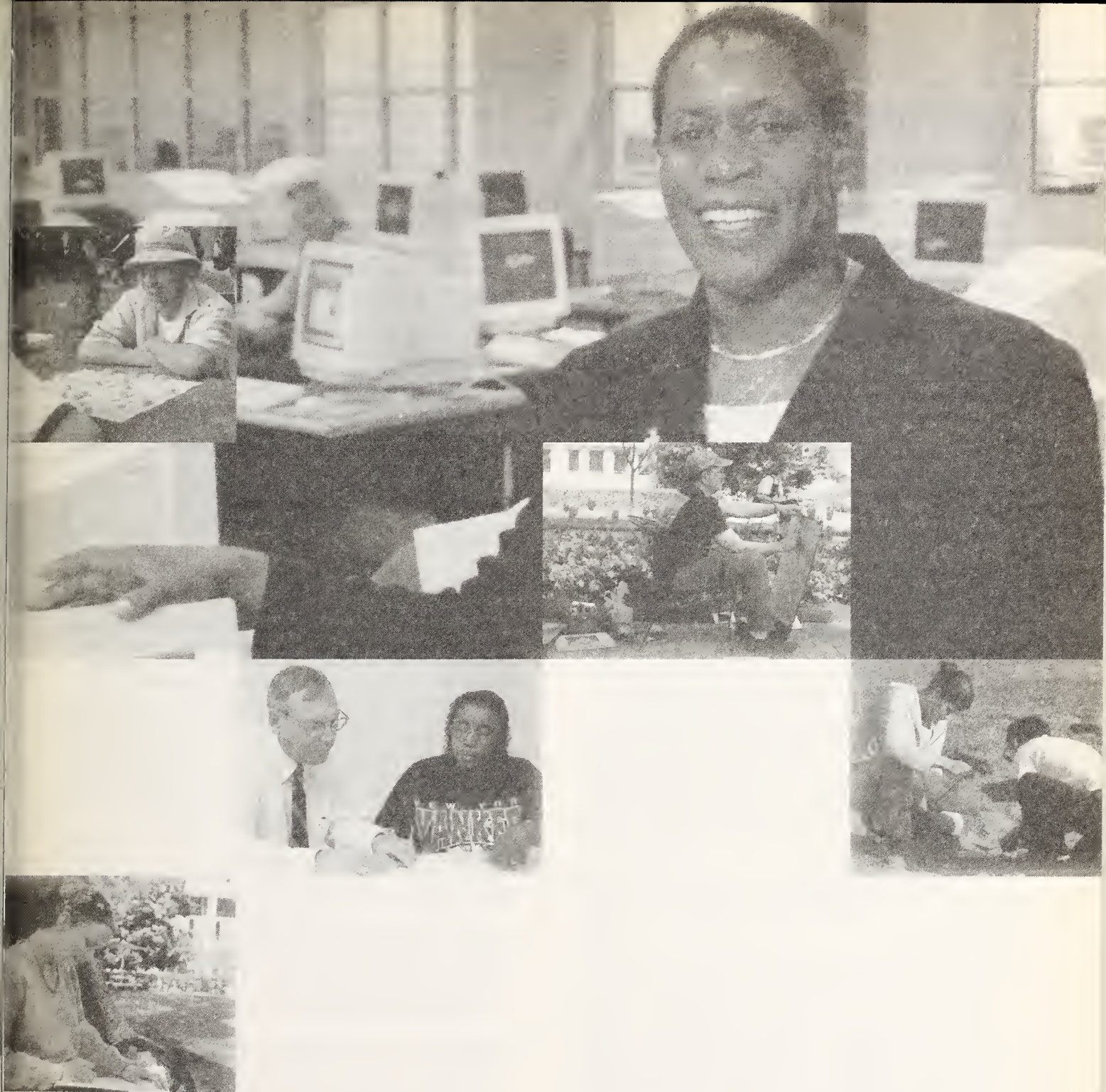
A copier is located in the library.

Cityview Center

A copier is located in the main lobby area.

Southwest Campus

A copier is located in the library.

Programs and Services

Programs and Services

College Without Walls

The College Without Walls offers credit and non-credit instructional programs through a variety of delivery modes. The courses are taught by CPCC faculty and adhere to the same requirements and standards established for classroom-based instruction. Options currently offered to students include telecourses which are commercially broadcast video courses and online courses which are delivered over the Internet.

College Without Walls offerings are designed to meet the needs of students who want some flexibility in their educational pursuits. College Without Walls offerings will continue to expand to meet the needs of students who have multiple obligations and want to pursue their educational goals or upgrade their skills.

For information on the College Without Walls, call (704) 330-6883 or visit the CWW web site at http://cww.cpcc.cc.nc.us.

Compensatory Education Program

The Compensatory Education Program provides adult education classes for persons who have special learning needs, due to a developmental disability or traumatic brain injury. Both day and evening classes are scheduled on the Central Campus. Classes are also offered at several community agencies providing job training and sheltered employment. Classes are small and structured to meet the individual needs of each student. There is no charge, and books and materials are provided.

The primary emphasis is on the basic life skills needed for successful employment and independent living. The curriculum covers a broad range of subjects, including reading, writing, math, health, consumer education, social studies, job seeking and other work related skills. Throughout the program, there is a strong emphasis on the practical application of these subjects to the challenges of daily life.

To be eligible for these classes, students must be 18 years old, no longer attending public school, and able to provide evidence of a developmental disability or brain injury. For more information and a current schedule of classes, please call (704) 330-6033.

Cooperative Education Program

Cooperative Education is an academic program which integrates classroom studies with practical experience in business, industry, public and community agency work situations. The work experience constitutes a regular and essential element in the educational process by allowing students to apply their studies in a real work environment.

The Co-Op work experience is concurrent or alternating with academic studies, may be paid or unpaid, and awards students academic credit. For many CPCC students, Co-Op provides an extra means of financial support.

• **Eligibility**

Students are accepted from various programs of study at CPCC, provided they meet the following general criteria:
1. Be enrolled in an approved CPCC Co-Op curriculum or degree;
2. Have a minimum 2.5 GPA (may be lower, depending on division);

3. Have successfully completed specific courses pre-selected by faculty;
4. Be recommended by the Co-Op faculty coordinator; and
5. Be approved by the Cooperative Education office.

Note: Enrollment in the Co-Op Program does not guarantee placement for every student.

• **Present Position - Co-Op In Place**

Students can qualify to receive academic credit if they are already employed and they meet the following general criteria:
1. Students must be acquiring significant new skills or knowledge related to their academic fields of study; and/or
2. Students must be developing recently learned skills or applying recently learned knowledge related to their academic fields of study; and/or
3. Students must be receiving increased levels of responsibility related to their academic fields of study; and/or
4. Employers must agree to assist with evaluations of their individual student's progress.

For more information on how to participate as a Co-Op student or a Co-Op employer, contact the Work-based Learning/Cooperative Education Office, Kratt Hall 121, (704) 330-6217.

Counseling Services

Professional guidance and counseling services are provided by the counseling staff in the areas of academic, personal, and career counseling; program and college orientation; academic assessment; and high school matriculation. These services are available to all prospective and current students.

The Personal Counseling Assistance Program (P-CAP) provides confidential and professional counseling assistance to students regarding personal issues that may be adversely affecting their progress. Students are seen by appointments, and the counseling staff will make appropriate medical or agency referrals when additional help is needed. Call 330-5013 or 330-6954/6433 (or go to Sloan, Suite 163A or Garinger, Room 212) to schedule a PCAP appointment.

The counseling function is an integral part of the teaching and learning process. In that light, the counseling staff works very closely with faculty in addressing specific counseling needs of students as well as in designing and implementing courses which help students become more successful in college and beyond. The staff is committed to promote student success by assisting students in the development of self-help strategies, i.e. "helping students help themselves."

Distance Learning Services

The Distance Learning Services Department offers a large variety of courses through television, radio, and newspapers at various locations throughout the community. Distance Learning Services strives to offer quality courses through non-traditional delivery methods in order to meet the needs of students who find it difficult to attend classes on the Central Campus.

Through Distance Learning Services, traditional classes taught on the Central Campus are simultaneously delivered via interactive television to Area Centers, businesses, and homes. During these telecasts, viewers can interact directly with the instructors and with other students.

Telecourses offered through the Distance Learning Services are pre-recorded, videotaped classes that are shown at specific times on cablevision channels and are available anytime on request at the Area Centers. Telecourses generally require a

Programs and Services

minimum number of scheduled meetings with the instructor, and instructors are available by telephone throughout the course to answer questions.

Interactive TV courses and telecourses offered through the Distance Learning Services carry the same credits as their traditional counterparts. Course testing is conducted at the Testing Center on the Central Campus and at Area Centers. The cost of DL courses is the same as for traditional courses.
For more information, call (704) 330-6943.

Educational Talent Search

Educational Talent Search is designed to assist potential first generation college students and students from low income families in completing high school and continuing their education at the post-secondary level. Educational Talent Search assists students in enrolling and completing the Adult High School Diploma Program (HDS) or General Education Development Program (GED) at CPCC and assists them in pursuit of education at the post-secondary level. Within the Student Development Group, Educational Talent Search works closely with Admissions, Testing Services, Counseling, Special Services, and Dropout Intervention.

Educational Talent Search offers personal, academic, and career counseling, and workshops on study skills, time management, career awareness, college awareness, decision making, and financial aid. Educational Talent Search's goal is to assist participants in establishing and/or reaching educational and career goals.

Educational Talent Search provides students with help in filling out admissions forms and financial aid applications. Educational Talent Search also offers fee waivers to assist with the cost of admissions applications and S.A.T. testing.
For more information, call (704) 330-6961 or 6393.

First Aid Team

CPCC's first aid team for the Central Campus consists of faculty and staff volunteers. Team members are certified in Standard First Aid and CPR. Two members usually are on duty Monday through Friday, 8:30 a.m.-4 p.m.

To report medical emergencies, call (704) 330-6444 or 6911.

High School Students at CPCC

Several programs at CPCC encourage Charlotte area high school students to remain in school and enable them to take courses at CPCC:

• **The College Experience Program** provides Charlotte-Mecklenburg School System high school seniors a head start on a college education, advanced vocational preparation, and personal enrichment opportunities. Approved CPCC courses may be taken by students during their senior year as a part of the school day. Courses are taken on the Central Campus North, South and West Centers, as well as on site (at the high school in some cases) and may give both high school and college credit. College Experience students are regarded by CPCC as any other college students and receive identical treatment. Grade reports are mailed to students and to the high school following the close of each semester. Copies of students' transcripts are available through the office of Student Records. For additional information, call (704) 330-6576.

• **The Concurrent Enrollment Program** enables qualified students, who are at least 16 years old and who are enrolled in Charlotte area high schools, to take courses at CPCC for personal enrichment or high school or college credit. High school credit for courses taken through Concurrent Enrollment must be approved specifically by the high school principal. Concurrent Enrollment forms may be obtained at high schools or by request from the Concurrent Enrollment Counselor's office on the Central Campus. Students enrolling in this program must present the signed and approved Concurrent Enrollment form at the time of registration at CPCC. Concurrent Enrollment students are regarded by CPCC as any other college student and receive identical treatment. Grade reports are mailed directly to students following the close of each semester. Copies of students' transcripts are available through the Office of Student Records. For Concurrent Enrollment Forms or additional information, call (704) 330-6244.

• **Pre-College Services** works with high school dropouts, possible dropouts, and others in need of specialized additional educational programs. Pre-College Services coordinates the functions of Dropout Intervention, Concurrent Enrollment, the GED Testing Center, and Service members Opportunity Colleges (SOC); provides entry processes and mechanisms; and coordinates dropout prevention between the College and public schools in compliance with North Carolina Senate Bill 184. For more information, call (704) 330-6975.

• **The College Tech-Prep Program** is offered in conjunction with Charlotte Mecklenburg Schools. Students who are enrolled in the program during high school should have already selected a career cluster in high school and degree program at CPCC. Some of the courses taken during high school actually allow for advanced placement in CPCC programs. Please refer to your career path guidelines, check with your high school counselor or the appropriate department head at CPCC. For more information, call 330-6244.

The CPCC Honors Program

The Central Piedmont Community College Honors Program is aimed at providing an appropriate level of educational experience for students who thrive on a greater intellectual challenge and who wish to distinguish themselves academically and professionally. The program was conceived with the idea that academically superior students want this greater challenge to their intellectual abilities and are intrigued with the chance to stretch their minds as far as possible. Thus, the Honors Program offers great opportunities for intellectual stimulation. The program activities include small classes composed of students with similar interests and motivation, internships, and mentorships with instructors and community leaders in various fields of study. There are also opportunities for international travel, study, and work. These students can be graduated, if they meet certain qualifications, "With Honors."

The program is designed as an enhancement and enrichment to a students chosen curriculum and is open to all students who qualify. It is composed of three segments:
(a) special Honors sections of general courses such as English 111 and 113, Business 110, Biology 111;

(b) student-initiated Honors contracts written between individual instructors and students allowing those students to work on the "honors" level in a non-honors designated section; and,

(c) a series of specially designed and taught interdisciplinary "Honors Seminars" limited to Honors students only. These seminars linking the humanities and the technologies will feature guest speakers, visits to sites off-campus, and actual involvement with leaders in various technological, business, and arts areas in the Metrolina area.

Students interested in the CPCC Honors Program or who have questions about the program should contact Dr. Roy Colquitt, Director of the Honors Program, at the Honors Office, 127 Sloan, or by phone at (704) 330-5055.

Work-based Learning Program

There are many programs available to students that will provide the necessary experience and skill development in chosen career fields. The majority of employers today prefer applicants with career-related experience. Students may choose to work in one area or sample multiple interests; and students may choose to combine different types of experiences.

Career experience has additional benefits for students more comfortably navigating the transition from school to work; gaining the competitive edge over other job candidates; assisting with college costs, identifying interests and skills; and enabling students to build a career-oriented work record, thus increasing marketability and value to employers upon graduation.

Career experience can be gained through the following programs:

Cooperative Education
Adult Apprenticeships
Career Internships
Job Shadowing
International Opportunities
Community Service/Volunteer positions

For more information, call the Work-based Learning Office at (704) 330-6217.

Ruth G. Shaw Academic Learning Center

The Ruth G. Shaw Academic Learning Center is a comprehensive learning assistance laboratory providing help to students in academic areas. Services offered through the Learning Center include peer tutoring, writing assistance, math tutoring, computer assisted learning drills, word processing, Internet access and learning skills diagnoses. Located on the first floor of Garinger, the Learning Center provides individualized instruction from trained staff members. Students receive help with a wide range of subjects including English, reading, science, and mathematics. By appointment or on a walk-in basis, the Academic Learning Center is open Monday-Thursday from 8:00 a.m. - 8:00 p.m. and on Fridays from 8:00 a.m. - 12:00 noon.

For further information, contact the Academic Learning Center at (704) 330-6474.

Multi-Skills Center

The Multi-Skills Center provides individualized instruction in general office skills to adults with disabilities that are barriers to employment. The program also emphasizes training in job readiness, human relations, and life skills. Training simulates an office atmosphere in which the instructor is both teacher and office manager.

The Multi-Skills Center serves clients referred by the Division of Vocational Rehabilitation. Some of the eligibility credentials for program admission that will be considered include a high school diploma or GED certification, minimum eighth-grade reading and math levels, and CPCC's North Carolina residency requirement. Referrals and selections are conducted throughout the year. Program funding, including tuition and instructional supplies, is provided by the Division of Vocational Rehabilitation and by CPCC.

For further information, call (704) 330-6037.

Reading Clinic

Students can improve their reading skills with help from the Reading Clinic. Diagnostic and referral services are available, as well as tutoring for those who need basic reading instruction. For more information, call (704) 330-6486.

Services for Students with disABILITIES

Services for Students with disABILITIES is a uniquely comprehensive and innovative program designed to meet the educational needs of students with disabilities. The department provides services to students with disabilities that include, but are not limited to, the blind, deaf, hard of hearing and to students with learning disabilities, physical disabilities, traumatic head injuries, developmental disabilities and many others. A comprehensive list of all disabilities accommodated can be obtained from the Services for Students with disABILITIES office.

• *Admissions and Campus Visit*

Students who request assistance through Services for Students with disABILITIES need to submit official documentation of their disability. Official documentation may be a psychological report, a vocational rehabilitation document, a high school transcript indicating the existence of disability, an insurance statement and/or medical records. Specific types of documentation of disability vary with the student's disability. Before students with disabilities make a final decision to enroll at CPCC, the College recommends that they visit the Central Campus to meet the specially-assigned counselor in Services for Students with disABILITIES office. At that time, the student may also investigate arrangements such as housing, other campus support services, mobility training, etc.

Using the "documentation of disability," admissions documents, career interests, inventories of non-academic skills, placement testing results, and student interview, the counselor develops a plan for the student's academic progress. This plan describes the student's eligibility and the nature of accommodations. The counselor and the student will plan specific goals and determine which accommodations are necessary. In order to receive appropriate services, the student must maintain contact with the counselor throughout the quarter. Students are also encouraged to discuss their needs for accommodations with their instructors.

• *Counseling Services*

Counseling is an important component in overall student success. The Services for Students with disABILITIES counselors provide personal, social, vocational, and educational

counseling. The counselors are the main referral point for assisting instructors in making accommodations for individual students.

• *Full-Time Status*

Based on the nature of the disability, a student may not be able to enroll for 12 hours of credit during fall and spring terms and for at least 9 hours of credit during the summer term as other students.

Full-time status for a student with a disability may be established based on, 1) the nature of the disability, 2) the nature and demands of the course, 3) the time the student requires to complete certain academic tasks, 4) the nature and the effects of medication to academic performance (if the student is taking medication), and 5) the stability of the disability.

• *Educational/Vocational Plan*

It is recommended that students interested in requesting accommodations meet with the counselor to discuss their educational/vocational goals. These goals would include: the support services needed by the students based on the specific disability, the student's responsibilities and obligations, the College's commitment, course sequence, accommodations, course substitutions, etc.

• *Interpreting Services*

One of the most critical components for any program for deaf and hard of hearing students is interpreting services. The success of a student's educational experience is greatly dependent on the quality and availability of interpreting services.

The College employs highly qualified, certified interpreters who are skilled in using American Sign Language. They function as a communication channel between the student and the instructor. Deaf and hard of hearing students may also request interpreting services for clubs and organizations supported by the College. Certain reasonable schedule adjustments may be necessary in order to provide interpreting services for students who need them.

• *Reader/Writer Service*

CPCC will provide readers for visually impaired and learning disabled students. These readers will assist students with reading textbooks and taking tests. Students who cannot take notes because of a hearing impairment, learning disability, physical impairment, or another disabling condition may receive assistance from volunteer notetakers.

Students, however, are encouraged to utilize alternative methods such as the use of tape recorders, lap-top computers, reading machines, adaptive technologies, instructor and/or classmate notes. The emphasis is placed on options/technologies the students can use to complete the work independently.

• *Tutorial Services*

Tutorial services are provided as a supplement to regular class work. Tutorial services, however, are not provided as a substitute for class prerequisites; for unsatisfactory work in prerequisite classes; or for poor class attendance. Tutorial services may be provided individually or in a group and may be requested at the Academic Learning Center. The Social and Academic Skills Enhancement Lab is a self-paced, tutorial lab and assists students to develop their personal, social, and academic skills. The lab is located on the second floor of the Terrell Building. In

this lab students are able to work on such skills as study skills, notetaking, test taking, test anxiety, self-esteem, assertiveness, empathy, goal setting, budgeting, stress management, motivation, commitment ethic, etc. Students with disabilities who feel they lack these skills may discuss this service with their counselor. Tutorial services are subject to availability of funds.

• *Parking for Students with Physical Disabilities*

There are parking spaces for the handicapped throughout CPCC, and information about their locations is available from the Services for Students with disABILITIES office. Students must display a handicapped parking card, obtained from the North Carolina Department of Motor Vehicles, in order to identify their vehicles properly when using these spaces.

• *Unidentified Disabilities*

Students may have difficulties with their studies and be unaware of the presence of a disability. Students may continue to experience problems without knowing why. The Services for Students with disABILITIES office is available to discuss and make referrals to the appropriate resources so that students may obtain assessment and documentation.

• *Postsecondary Education Consortium*

CPCC is a member of the Southeastern Postsecondary Education Consortium (PEC), one of four federally-funded Regional Postsecondary Education Programs for the Deaf. This program expands postsecondary opportunities to the deaf and hard of hearing students, promoting quality programs and services through innovative practices and outreach. CPCC's affiliation with PEC assures that the deaf and hard of hearing students receive the highest quality of services possible.

PEC also provides training programs for other college personnel within the NC Department of Community Colleges.

For more information on Services for Students with disABILITIES, call (704) 330-6621; TTY (704) 330-6421.

Short Term Training Programs

Short Term Training is designed to complement other CPCC's Workforce Development programs by offering students four-week to one-year programs which provide students excellent job opportunities in the Charlotte area and, in addition, a career ladder for advancement once employed.

Short Term Training is available for curriculum and non-curriculum course programs in over 30 areas of high employability and features open-entry options and work-based learning opportunities.

Registration for these programs is the same as for other CPCC programs, and the programs are listed in the CPCC course schedule. Cost varies by program.

For more information, call (704) 330-6278.

Simmons Career Center

The Simmons Career Center, located in Garinger 122, strives to help students with career issues during their entire tenure at CPCC. Alumni are also eligible for services. Our comprehensive career development program offers:

- Guidance on choosing and preparing for a career,
- Assistance in finding jobs,
- Workshops on job search preparation and interview techniques,

- Assistance in writing resumes,
- Referrals to curriculum-related jobs,
- Contact with employers through on-campus interviews, job fairs,
- Special career development events.

Exploring Careers

Several options are available for exploring careers.
- Individual career counseling and testing is available for currently enrolled students who are undecided about career plans and/or a college major.
- Employer Panels bring local employers on campus to talk with students about job outlook, hiring trends, requisite skills, etc.
- Career development classes are available throughout the year (ACA 120).

These classes help students discover their unique gifts and talents and how they relate to career options.
- Computerized career interest/skill inventories (SIGI Plus, Choices CT) are available by appointment or on a walk-in basis.

These career guidance programs are available to students and the general public at no charge. To make an appointment, call (704) 330-6551.
- Career Counseling for the Community is available for those not currently enrolled at CPCC.

This low cost, short term program focuses on the assessment of abilities, interests, personality and values as they relate to possible retraining and career goals. Participants develop a Life/Work Portfolio. All tests and materials are included in the cost.

Finding Employment

Students and alumni interested in obtaining employment should attend a brief orientation to Career Center services. Orientations are scheduled daily.
- *Student employment*
    Part-time and full-time job listings
    Job Information Hot Line (JIHL) at (704)-330-4003
    Internet job search
- *Graduate employment*
    Resumé referral to degree related jobs
    Services continue for one year after graduation
- *Employment Security Commission*
    North Carolina Job Service/Job Link representative on campus
    National Job Information Service (JIS) terminals on campus

Accessing the Career Center

To access services of the Career Center, you may call (704) 330-6551 to schedule an appointment or drop by Garinger 122 on the Central Campus. Career Center hours are Monday-Friday, 8:00 am - 5:00 pm.

Student Life

The Office of Student Life serves as a center for campus programs and activities, a resource for student organizations and community service projects, and a focal point for leadership development opportunities. Student Life provides direction, guidance, and resources for numerous on-going campus organizations, including the Student Government Association, Student

Publications, United Campus Ministries, Intramural Athletics, and numerous other student clubs and organizations.

Activities sponsored or supported by Student Life include campus-wide festivals, lectures, workshops, conferences, field trips, information booths and displays, musicians, and other entertainers. The Office of Student Life places priority on activities which support and enhance learning in the classroom, which provide opportunities for student leadership development, and which honor the rich diversity at CPCC and in the surrounding community.

For further information, come by the Office of Student Life in Van Every Building Room 106, or call (704) 330-6584, (704) 330-6512 or (704) 330-4081.

• The Student Life Center

The Student Life Center is located on the first floor of the Van Every Building, Room 102, Central Campus. It offers a place for students to relax between classes, study and prepare for class, or play boardgames. The Student Life Center is also frequently used for campus programs, lectures, and workshops. Meeting rooms are available to student clubs and organizations. The Student Government Association, Student Life Offices, and offices for several student organizations are located in the Student Life Center. Outside the Student Life Center, the patio with an adjoining stage is a popular location.

• Student Government Association

The Student Government Association is the campus organization which represents the interests of all CPCC students. Membership is open to all currently enrolled curriculum students who are elected through the process outlined in the SGA Constitution. Its policies are in keeping with those of the CPCC Board of Trustees, the Administration, and the laws of the State of North Carolina.

The SGA serves as a resource for student clubs and organizations; coordinates two annual campus-wide festivals; sponsors blood drives, student appreciation days, musicians and entertainment activities on the Central Campus; and reviews the expenditure of student activities fees. The SGA President serves as a non-voting member of the Board of Trustees, and SGA members frequently serve as student representatives on College committees.

The Executive Committee of the SGA is elected each spring and includes the president, vice-president, secretary, treasurer, parliamentarian, and public information officer. Applications for senator positions are accepted during spring and fall semesters, and selection is made by vote of the Executive Committee. Copies of the senator applications and the SGA Constitution are available in the SGA office, located in the Student Life Center, Van Every Building, Room 104.

• Student Clubs and Organizations

Student Life and the Student Government Association offer support, guidance, and resources to over forty student clubs and organizations on our campus. Some of these organizations focus on special interests, and others are directly related to curriculum programs offered at CPCC. Although some clubs have membership requirements, no organization at CPCC is allowed to discriminate on the basis of race, creed, color, gender, sexual orientation, age, handicap, religion, nationality, or political preference. A complete list of student clubs and organizations is included in the Student Handbook, which is available in the Office of Student Life, the Welcome Center, and other center locations.

• *Student Publications*

Student Publications, with support from the Student Life Office, is responsible for two periodic publications, each produced by a staff of CPCC students who work under the guidance of a Student Publications advisor. The SPARK is a monthly campus newspaper which informs students of College and community activities and serves as a forum for the exchange of ideas. KEYSTONE is an annual creative arts magazine showcasing student work in writing, photography, art, and computer generated art.

Staff positions for both THE SPARK and KEYSTONE include editors, writers, photographers, and design artists. Positions for THE SPARK staff are filled on an as needed basis. New writers and photographers are encouraged to apply at any time, and editors are usually chosen from the existing staff. The KEYSTONE staff is selected each spring to produce the magazine during the summer. New staff members for both publications are always welcome.

For more information, visit Central Campus, Taylor Building Room 205, or call (704) 330-6665.

• *Lost and Found*

A lost and found service is located for the Central Campus in the Student Life Center, Van Every, Room 106. Any item found on the Central Campus should be brought to this office promptly where it will be logged in. If no one claims the item within a reasonable time period, it is donated to the Drama Department or a local charity.

To inquire about lost and found items, call (704) 330-6584.

Student Support Services

Student Support Services is a federally-funded, academic support program that develops students to their fullest potential. Designed to help eligible students become successful in college, the Student Support Services professional counseling staff assists students set and achieve their educational and career goals.

To be accepted into this program, the student must:
• be enrolled or registered at CPCC in a curriculum program,
• complete the Student Support Services application,
• provide income verification,
• complete the Federal Financial Aid application, and
• commit to meet with a weekly tutorial group.

Students receive help with:
• Educational and Career Counseling,
• establishing academic and career goals,
• locating adequate financial assistance, and
• academic skill development and tutoring in selected subjects.

Special workshops are available for eligible students on:
• *College Survival Skills:* Special seminars designed to improve goal setting, study habits, test-taking skills, time management, break down learn blocks, and learn-enhanced learning skills are available to help students succeed in college.

• *College Transfer Project:* Eligible college transfer students can receive individualized guidance on how to complete the transfer process from a two-year college to a four-year institution. Students are helped with the career and curriculum matching, college admission application, where to obtain financial aid assistance, and tours of area college campuses.

For further information, contact the Student Support Services project in the 7th Street Building (704) 330-6394.

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Programs and Services
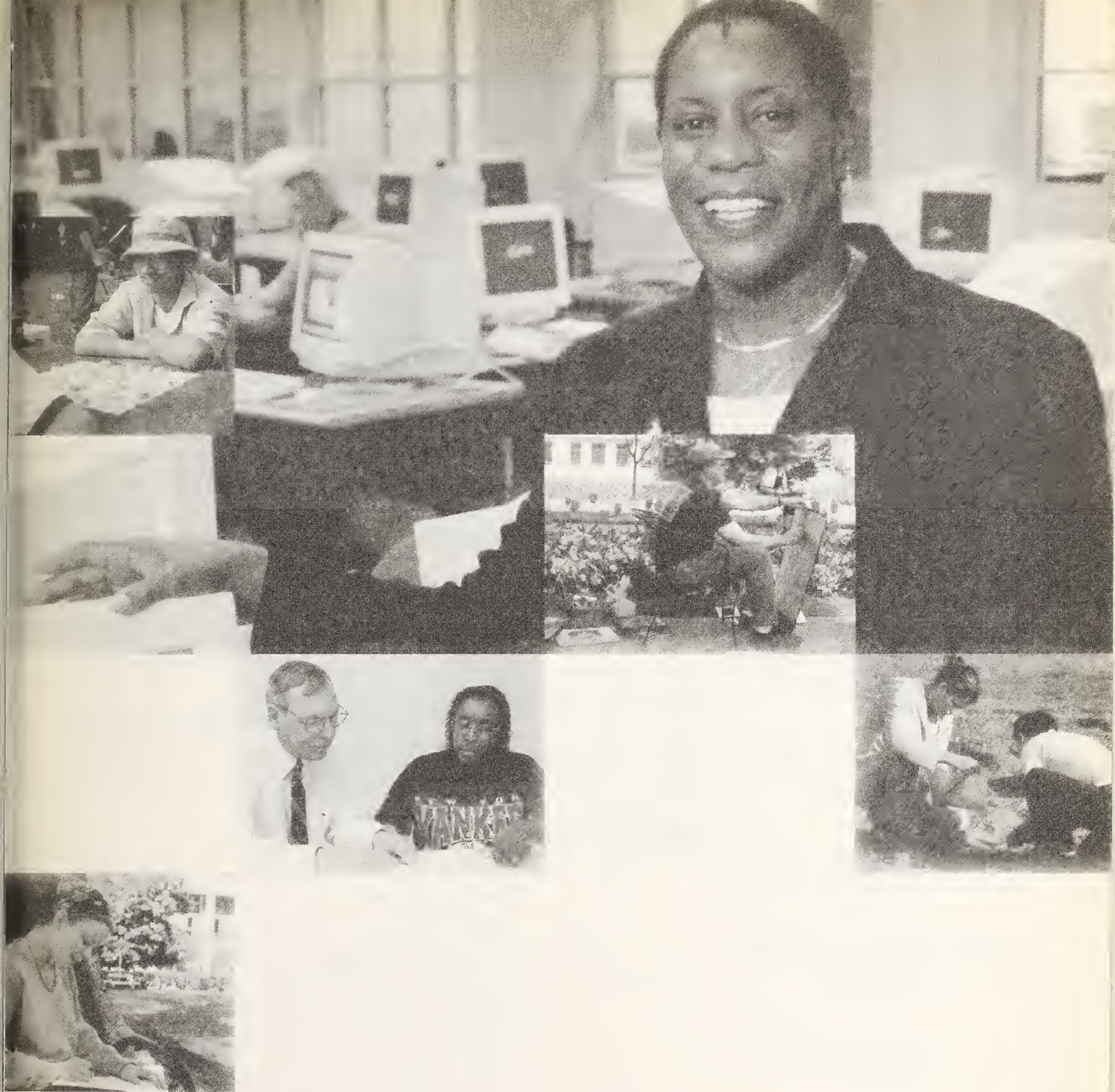
Academic Calendar

Academic Calendar

Spring Semester 1999 - Fall Semester 2000

	S	M	T	W	T	F	S
Jan '99						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						
Feb '99		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28						
Mar '99		1	2	3	4	5	6
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	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31			
Apr '99					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	
May '99							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31					
Jun '99			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30			
July '99					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31
Aug '99	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
Sept '99				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30		
Oct '99						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						
Nov '99		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30				
Dec '99				1	2	3	4
	5	6	7	8	9	10	11
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	19	20	21	22	23	24	25
	26	27	28	29	30	31	

Spring Semester '99

Classes Begin..Mon., Jan. 11

First Short Session.....................Mon., Jan. 11-Sun., Mar. 7

Martin Luther King, Jr. Holiday......................Mon., Jan. 18

Spring Break (CPCC Open)...Mon., Mar. 8 - Sun., Mar. 14

Second Short Session................Mon., Mar. 15-Sun., May 9

Spring Holidays ....Fri., Apr. 2 - Sun., Apr. 4

Classes End ....Sun., May 2

Final Exam Period.....................Mon., May 3 - Sun., May 9

Graduation ....Fri., May 7

Semester Ends..Sun., May 9

Summer Term '99 (10 weeks)

Classes Begin...Mon., May 24

First Short Session...................Mon., May 24-Sun., June 27

Memorial Day Holiday....................................Mon., May 31

Second Short Session................Mon., June 28-Sun., Aug. 1

Independence Day Holiday ....Fri., July 2 - Sun., July 4

Classes and Term End..Sun., Aug. 1

Fall Semester '99

Classes Begin..Mon., Aug. 23

First Short Session.................Mon., Aug. 23 - Sun., Oct. 17

Labor Day Holiday..Mon., Sept. 6

Fall Break (CPCC Open)......Mon., Oct. 18 - Tues., Oct. 19

Second Short Session............Wed., Oct. 20 - Sun., Dec., 19

Thanksgiving Holiday.......Thurs., Nov., 25 - Sun., Nov., 28

Final Exam Period................Mon., Dec. 13 - Sun., Dec., 18

Semester Ends..Sun., Dec., 19

Winter Holidays ....Tues., Dec., 21 - Fri., Dec., 31

New Year's Holiday ....Sat., Jan., 1 - Sun., Jan., 2

Academic Calendar

Spring Semester 1999 - Fall Semester 2000

Spring Semester 2000

Classes Begin..Mon., Jan. 10

First Short Session.......................Mon., Jan. 10-Sun., Mar. 5

Martin Luther King, Jr. Holiday........................Mon., Jan. 17

Spring Break (CPCC Open)...Mon., Mar. 6 - Sun., Mar. 12

Second Short Session................Mon., Mar. 13-Sun., May 7

Third Short Session....................Mon., May 8 - Sun., July 2

Spring Holidays..........................Fri., Apr. 21 - Sun., Apr. 23

Final Exam Period......................Mon., May 1 - Sat., May 6

Graduation...Fri., May 5

Semester Ends...Sun., May 7

Summer Term 2000

Classes Begin..Mon., May 17

First Short Session...................Mon., May 17-Sun., June 20

Memorial Day Holiday....................................Mon., May 29

Second Short Session.............Wed., June 21-Tues., July 25

Summer Break...Mon., July 3

Independence Day Holiday...............................Tues., July 4

Classes and Term End.......................................Sun., July 30

Fall Semester '00

Classes Begin...Mon., Aug. 21

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	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31					
Feb '00			1	2	3	4	5
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	13	14	15	16	17	18	19
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	27	28	29				
Mar '00			1	2	3	4	
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	19	20	21	22	23	24	25
	26	27	28	29	30	31	
Apr '00							1
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	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30						
May '00		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31			
Jun '00					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	
Jul '00							1
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	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31					
Aug '00			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		
Sept '00						1	2
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	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30

CPCC is closed on holidays listed above.

Advisement Week and Registration dates for each term will be announced in the
CPCC Class Schedule.

For additional information,
call the CPCC Information Center at (704) 330-2722.
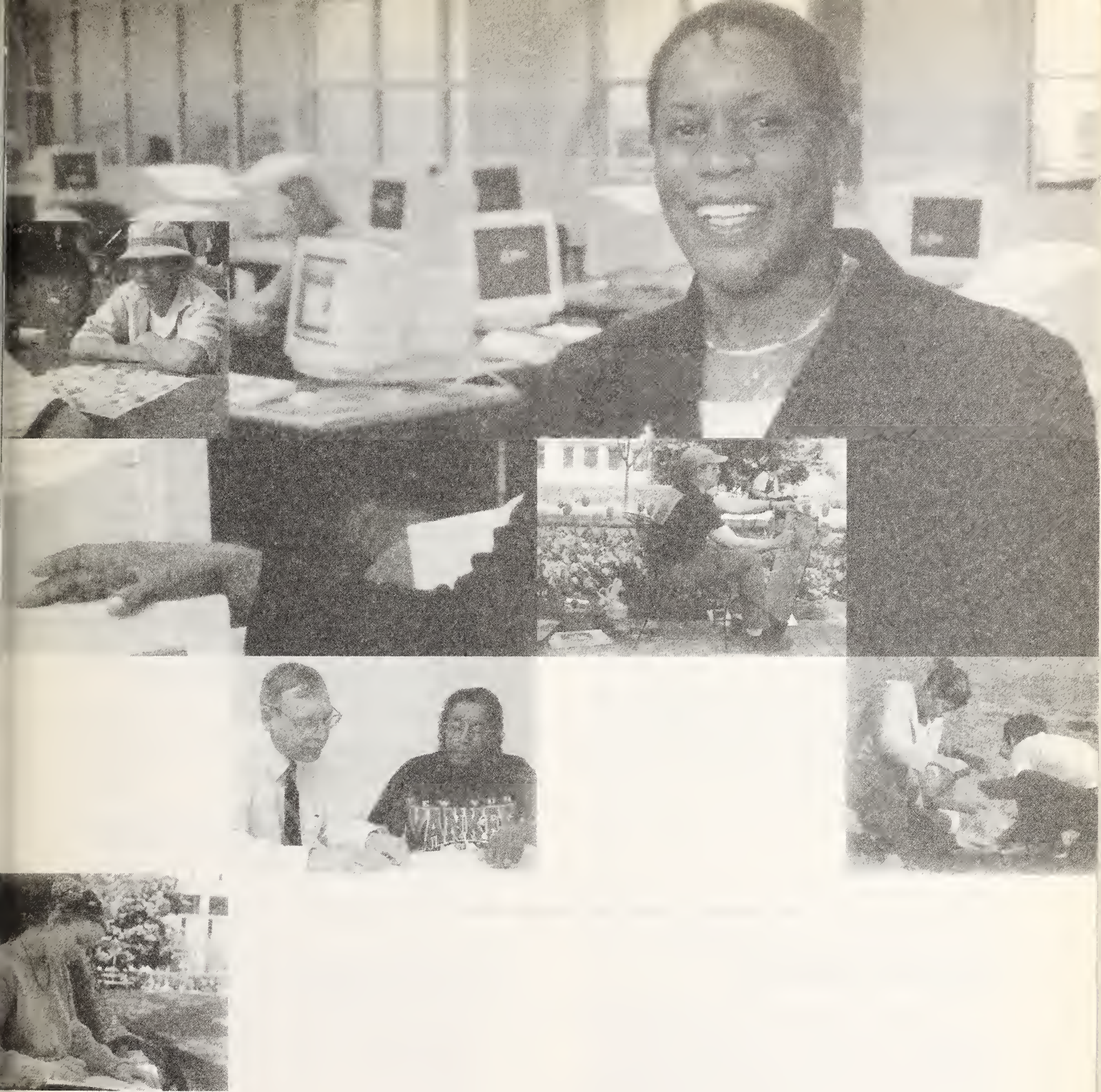
Admissions

ADMISSIONS QUICK REFERENCE

Adult Basic Literacy Education: ABLE
For students who want to read, write or compute at an adult level. (704) 330-6716, Sloan – Suite J.

Adult Basic Education
ABE: up through Grade 9
(704) 330-6716, Sloan – Suite J.

Compensatory Education
For students with special needs.
(704) 330-6033, Sloan 238.

Degree/Diploma/Certificate Programs, and Career Undecided Students
(704) 330-6425, Welcome Center, Garinger Building 2nd Floor, or any Area Center or Campus.

Educational Talent Search
(704) 330-6393, 7th Street Center 109.

Student Support Services
(704) 330-6394, 7th Street Center 109E.

Financial Aid
(704) 330-6942, Garinger 206.

High School Programs
• College Experience. (704) 330-6244 or 6798, TE 200.
• High School Completion/Diploma (Grades 10-12). (704) 330-5013, Garinger 212.
• Concurrent Enrollment. (704) 330-6244 or 6798, TE 200.
• G.E.D. (704) 330-6680, Pourlos 101.

Human Resources Development
• Self-Directed Job Search
• Banking Skills / Ten Key
• Customer Service / CRT / Keyboarding
• Ten Key / Keyboarding
(704) 330-6969, Sloan, Suite H

International Students Admissions
• F-1 Visas and those changing to F-1 status. Admissions. 2nd floor Terrell, (704) 330-6456.
• Other visa types - Admissions. 2nd floor Garinger. (704) 330-6537.
• Permanent Resident Aliens. Admissions. 2nd floor Garinger. (704) 330-6537 / 6247.
• Limited English Proficiency /English as Second Language Testing. (704) 330-6779 / 4154, Van Every 301
• Academic ESL Testing, Testing Center, (704) 330-6604 / 6506.

J.T.P.A.
Job Training Partnership Act (704) 330-6008, Van Every 332.

Multi-Skills Center
Training for Vocational Rehabilitation Clients
Taylor, (704) 330-6038 (voice or TTY).

Services for Students With disABILITIES
Hearing, Learning, Physical, Sight Disabilities.
(704) 330-6621, Terrell 219.

Veteran and Military Affairs
(704) 330-6942 / 6602, Garinger 206.

Wider Opportunities for Women
Single Parents, Non-Traditional Employment, Displaced Homemakers. (704) 330-6532, 7th Street Center 109E.

Central Campus Tours for Prospective Students

The College encourages individuals and groups to visit for a guided tour with a guide from the Welcome Center. When possible, faculty will explain their instructional areas and laboratories in response to special interests indicated by participants when the tour is scheduled. Call (704) 330-6040 to arrange a tour.

Admissions

Central Piedmont Community College follows an "open door" policy which welcomes all students without regard to color, creed, disability, race, national origin, or sex. Admission to the College, however, does not mean that students will be admitted immediately to a program with specified admissions requirements.

Steps in admissions vary, depending on what a student plans to accomplish at CPCC. Students are encouraged to contact the College early, in order to complete the steps outlined here

before the registration period begins. Questions should be directed to any CPCC campus or Area Center or by calling (704) 330-CPCC. The College is also described through a home page on the Internet at http://www.cpcc.cc.nc.us.

A. **Students who plan to enter a degree, diploma, or certificate program** need to complete these steps **before** registration begins:

1. Students should **complete a CPCC admissions form,** which is available at the Welcome Center, the Admissions Center, at any area center or campus, or by mail. Students should indicate the program they are planning to enter. **NOTE:** Students who plan to transfer to a four-year college or university after one or two years at CPCC should select either the Associate in Arts, Associate in Fine Arts, or Associate in Science Degree program.

2. Students who are planning to **apply for financial aid and scholarship consideration** should begin the process now. The first step in applying for all types of assistance, including scholarships, is to complete the Free Application for Federal Student Aid (FAFSA). (Applications are

available from the Financial Aid Office, Welcome Center, area centers and campuses, and in all local high school guidance counseling offices.) They should complete and mail the Free Application for Federal Student Aid in the envelope provided to the federal government's Processing Center, or apply electronically over the Internet at http://www.fafsa.ed.gov. The Financial Aid Department will contact the students by mail once they have drawn down the student's processed student aid report. Students are welcome to come by the Financial Aid/Veterans Affairs office if they have questions.

3. Students should *have official transcripts mailed* from each high school and/or college previously attended to **Admissions, CPCC, PO Box 35009, Charlotte, NC 28235-5009.** The name the student is currently using and the social security number should appear on each transcript. **Note:** Students who have an associate degree or higher from an accredited college or university are not required to submit high school transcripts.

4. Students applying for a certificate program are not required to submit high school transcripts, however, students who decide to continue their studies and apply for a diploma or degree program should refer to #3 above for regulations. Students applying for financial aid/veterans affairs still need a high school transcript on file.

5. Students who are unable to produce official high school transcripts must present evidence of high school graduation. Home schooled students must produce evidence of completion of a state approved home school program.

6. Students who have completed college level coursework at another institution **and** are seeking a diploma or degree from CPCC must fill out a request for an official transcript evaluation. Forms are available in the Student Records Office.

7. Students *should take placement tests* as required for the degree, diploma, or certificate program the student plans to enter. Appointments for placement tests are made at Admissions on all campuses or by calling (704) 330-CPCC. Students who mail in their admissions forms will receive mailed instructions for scheduling appointments for assessment.

8. After placement tests, students should meet with an academic advisor. The advisor will provide an overview of their assessment results, program information, an educational plan, and recommended lists of courses for which to register during their first term at CPCC.

B. *Students who want to change their programs* need to make an appointment with the program counselor for the program they wish to enter *before* registration begins.

C. *New students who need career/life planning assistance before selecting a program should do the following:*

1. Get an admissions form from the Welcome Center, the Admissions Center, one of the area centers or campuses, or request that one be mailed by calling (704) 330-CPCC. This should be completed and submitted before registration begins. Indicate "Undecided," instead of selecting a program, on the back of the Admissions Form. For students who have a general idea about their specific area of study, but still prefer to indicate "Undecided," program areas have been included in the "Undecided" category on

the Admissions Form to allow students to select a program area as closely related to their specific interests as possible.

2. Follow step under A7 for assessments.

3. Meet with an advisor before registering to discuss test results and receive assistance in developing an educational plan that correlates with life goals and objectives.

D. *Currently enrolled students who need career counseling may schedule an appointment with the career/life planning counselor by calling (704) 330-6463.*

E. *General Orientations are held four times per term. New students should attend one of these sessions to receive more in-depth information on College resources, program and career options, and tips on how to be successful students.*

F. *Students who plan to complete high school (grades 10-12).*
CPCC offers the Adult High School Diploma Program (HSD) and the Tests of General Educational Development (GED):

1. The *Adult High School Diploma (HSD)* Program leads to an earned diploma granted by the Charlotte/ Mecklenburg Board of Education. For graduation, the Board requires four units of English, three units of mathematics (including algebra), one unit of government and economics, one unit of United States history, one unit of world cultures/history, one unit of biology, one unit of physical science, one unit of earth science/ecology, seven electives, and a passing score on the North Carolina Competency Test. Students who have not completed a required unit must enroll for at least one term of study in the appropriate HSD course for that subject. The unit toward graduation is earned in that subject by passing the examination at the end of the course. The North Carolina Competency Test is administered on a regular basis. There is no charge for high school diploma classes or for the Competency Test. There is a charge for some elective classes.
For more information, call (704) 330-6864.

2. *The Tests of General Educational Development (GED).* GED Testing offers another opportunity for students who have not completed high school. A High School Diploma Equivalency is awarded by the North Carolina Department of Community Colleges after a student passes five individual tests in writing skills (including a written essay requirement), social studies, science, literature and arts, and mathematics. A pre-test is used to evaluate performance levels and instructional needs before testing. GED classes are available on the Central campus and at several off-campus locations. The off-campus classes are self-paced and allow students to progress at their own learning rates. There is no charge for pre-testing or GED classes; however, there is a $7.50 fee for final GED testing.
For more information, call (704) 330-6680.

G. *Students who plan to complete grade 9: Adult Basic Education (ABE)* is available for students whose schooling stopped short of the ninth grade. ABE provides instruction in basic reading and mathematics. Upon completion of the ABE program, students may enter the Adult High School Diploma Program or GED Program. There is no charge for these classes. ABE classes are offered at numerous locations.

For more information, call (704) 330-6680.

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Admissions

H. Adult students who plan to learn basic skills in reading and mathematics:

The Adult Basic Literacy Education (ABLE) program is located at community sites. This program offers a new approach for adults who want to read, write, or calculate at an adult level. The program combines the use of microcomputers, video systems, audio tapes, specialized programming, and tutors to teach adults reading and mathematics skills. Instructors guide students through program materials and help with the use of equipment. There is no charge for ABLE instruction.

For more information, call (704) 330-6680.

English as a Second Language is a program offering courses which enable students to master English as a second language. Students study the customs and traditions of American culture while learning the language. Academic and/or vocational courses may be taken when the student's language proficiency allows. Consult course descriptions with EFL or LEP prefixes.

For more information call (704) 330-6506 or 6960.

I. Students currently enrolled in Charlotte area high schools who want to take courses at CPCC:

For information about the College Experience Program and the Concurrent Enrollment Program, see Admissions Quick Reference at the beginning of this section of the catalog.

J. Students who do not plan to enter a degree, diploma, or certificate program at CPCC and who want to take courses of special interest:

Course descriptions in this catalog list the prerequisites (requirements) that must be met before registering for a course. Please note that ENG 111 (Expository Writing) and certain mathematics courses require placement assessment before registration. For these courses, contact Admissions to schedule a placement test. For more information, call (704) 330-2722.

K. International Students who are legal residents with permanent visas: Alien Registration Card holders are admitted to Central Piedmont Community College in the same manner as native citizens of the United States. Legal residents who need English as a Second Language are referred to the ESL Lab, Van Every 302, for placement tests and assistance. International visitors holding B-2 or other visas may enroll for classes of their choice as long as they hold a valid visa.

International students on F-1 Visas: These students must have a TOEFL (Test of English as a Foreign Language) score of at least 500 before entering a degree or diploma program. When the TOEFL score is below 500, the student is required to take English as a Second Language (ESL) courses until retesting at CPCC establishes the required proficiency level.

Any international student (non-immigrant) who is admitted to CPCC under an F-1 student visa must purchase medical insurance prior to registration each semester.

Applications for international student enrollment at CPCC are available in the Office of International Student Admissions, Terrell, 2nd floor, (704) 330-6456. A non-refundable, $25 fee will be charged for all applications.

L. Reasonable Accommodation(s): Reasonable accommodation(s) will be made for students with disabilities who feel they need assistance and/or accommodation(s) in the admissions and enrollment process or in the educational environment or requirements of a course, program, activity, or service.

Central Piedmont Community College does not discriminate against qualified individuals with disabilities. Moreover, as required by law, the College will provide reasonable accommodation(s), based on reported disabilities, to otherwise qualified applicants for admission or students in all education programs, activities, services, and practices, including application procedures, admissions, student assignment, course assignment, the awarding of degrees, discipline, and dismissal. Educational opportunities will not be denied to an otherwise qualified applicant or student because of his or her disability or because of the need to make reasonable accommodation(s) for the physical or mental disability of such individuals.

Applicants or students with disabilities who feel they need such assistance should contact Services for Students with disABILITIES, (704) 330-6621. A copy of the college's policy "Provision of Reasonable Accommodation for Education Programs, Activities and Other Services" is also available in the Office of the Dean of Student Development upon request. Students may also contact the Director of Affirmative Action and Compliance, Terrell 522, (704) 330-6424, if they have any questions or concerns about reasonable accommodation(s).

Registration

The College year consists of three terms. Fall and spring semesters are 16 weeks each, and summer term is 10 weeks. Though shorter, summer classes carry the same course credit as those in other terms. (See Academic Calendar.)

Students entering a degree, diploma, or certificate program must complete the admissions process prior to registration.

Returning CPCC students or new students who have completed the admissions process may register from a touch-tone telephone. Those wishing to register by telephone will find instructions in the class schedule. In-person registration for new and returning students is offered at four locations: Central Campus, North Campus, South Campus, and City View Center.

Students are encouraged to register as early as possible to avoid the heavy traffic of final registration and to ensure that they get a schedule that best meets their needs.
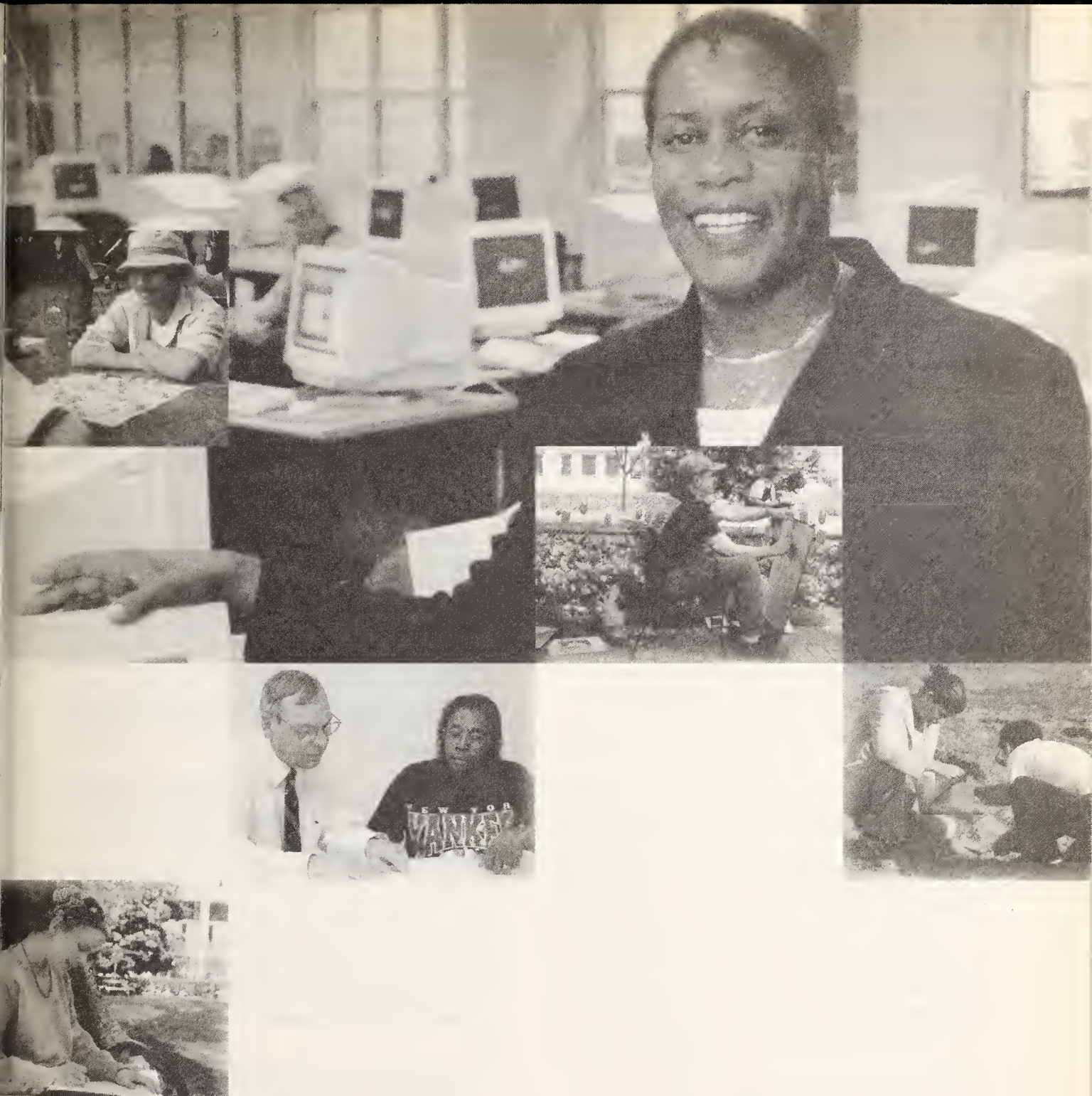
Tuition and Fees

Tuition and Fees

(Tuition and fees are subject to change without notice).

Tuition and the Student Publications/Activity Fee must be paid by mail or in person within 5 business days after registration. Cash, check, or credit card (MasterCard or Visa) are accepted.

Tuition

In-State students registering for curriculum courses:

- Fewer than 14 semester hours: $20.00 per semester credit hour.
- 14 semester hours or more: $280.00 per term.

In-State students registering for courses and seminars offered through Corporate and Continuing Education:

- State funded Occupational Extension classes are $35.00 per course. Additional fees may be charged to cover the cost of special software or equipment.
- A fixed charge per scheduled hour of instruction will apply to Occupational Extension classes taken more than twice within a 5-year period. Students are primarily responsible for monitoring course repetitions.
- Tuition for self-supporting classes will vary with course costs.
- $1.00 Student Publications/Activity Fee.

In-State students registering for High School Diploma or G.E.D. courses:

- No tuition or fee.

Out-of-State students registering for curriculum courses:

- Fewer than 14 semester hours: $163.00 per semester credit hour.
- 14 semester hours or more: $2,282.00 per semester

Out-of-State students registering for courses and seminars offered through Corporate and Continuing Education:

- Same as in-state students

Out-of-State students registering for High School Diploma or G.E.D. courses

- Same as in-state students

Student Publications/Activity Fee

- $10.00 per semester for 1 to 8 credit hours.
- $19.00 per semester for 9 or more credit hours.
- Maximum fee is $19.00 per term.

The Student Publications/Activity Fee is used to support the Student Life Center and many co-curricular and extra-curricular programs. Among these are student government, student publications, clubs and organizations, intramural and intercollegiate athletics, educational activities, speakers and entertainers of various kinds.

Lab Fees

Many courses that contain lab hour credits will charge a lab fee of $6.00 per lab hour credit with a maximum fee of $24.00. Lab fees will be used to provide supplies and equipment in the respective program.

Refund Policy

The North Carolina Community College/System establishes the refund policy:

Curriculum Classes

- All tuition will be systematically refunded by the College for any class canceled by the College.
- 100% of tuition paid will be refunded by the College if the student officially withdraws from the class prior to the first day of the academic semester.
- 75% of tuition paid will be refunded by the College if the student officially withdraws from the class on or after the first day of the academic semester through the 10% point of the semester.

Corporate/Continuing Education (Occupational Extension Classes)

- All tuition will be systematically refunded by the College for any class canceled by the College.
- 100% of tuition paid will be refunded by the College if the student officially withdraws from the class prior to the first day of the class.
- 75% of tuition paid will be refunded by the College if the student officially withdraws from the class on or after the first day of the class through the 10% point of the class.

Self-Supporting Courses
Refunds/Cancellations/No Shows:

Cancellations received at least seven (7) business days prior to the start date of the class are eligible for a full refund. After that, cancellations are subject to the entire class fee. Please note that if you don't cancel and don't attend, you are still responsible for payment. We reserve the right to cancel classes at any time without prior notice. Tuition will be refunded 100% for any class canceled by the College.

Fees

- Appropriate lab fee amounts will be refunded if the class is canceled by the College or the student drops a lab fee class during the 100% refund period.
- Student activity fees or student accident insurance are not refunded unless the class is canceled by the College.
This policy is subject to approval or change by the North Carolina Community College System.

Financial Aid Recipients

- The Department of Education guidelines for financial aid recipients may differ from the institutional refund policy. This is especially the case with recipients who are attending CPCC for the first time. Please request the refund policy from the Financial Aid Office.

Tuition and Fees

Student Insurance (Optional)

Two kinds of insurance coverage are available to students through CPCC:

Insurance Coverage

1. Accident Medical Plan

This plan insures students against loss resulting from accidental bodily injury sustained while at the College or while participating in or attending an activity exclusively organized, sponsored, and solely supervised by the College and College employees, including travel directly to or from such activity in a vehicle furnished by the College.

The plan pays up to $1500 for each accident which may include the costs of medical and surgical treatment, hospital confinement, and the services of a trained nurse during one year from the date of the accident.

Students wishing to have this coverage check the "Yes" box on their Registration Form. Coverage begins when tuition and the $3.00 insurance fee are paid at registration. Coverage stops at the end of the term.

2. Medical Hospitalization Group Plan

This plan is available to students enrolled for six or more credit hours. It provides accidental death benefits, maternity benefits, semi-private room, and major medical coverage up to $3500. Benefits will be paid in addition to other insurance coverage. The cost is $57 per semester or $169 per year. Spouses and unmarried children may be covered for an additional charge. Coverage begins the day that payment is received by the company and ends on the last day of class for the period in which premiums are paid`. Guarantee Trust Life Insurance Company is the provider (1-800-622-1993).

Residence Status

A legal resident of North Carolina is one who has domicile in the State. It is important that all applicants for admission and all enrolled students know their residence status for tuition payment and understand the regulations governing status. The "Student Residency Manual" is available for review in the Campus Registration Centers.

The following regulations cover most situations:

1. Persons 18 years of age or older are not deemed eligible for the lower tuition rate unless they have maintained legal residence in North Carolina for at least the twelve months preceding enrollment in an institution of higher education in this State.

2. The legal residence of a person under 18 years of age at the time of enrollment in an institution of higher education in this State is that of the student's parents, surviving parent or legal guardian. If the parents are divorced or legally separated, the legal residence of the minor is that of the parent to whom legal custody has been awarded.

3. The residence status of all students is determined at the time of their enrollment in an institution of higher education in North Carolina and may not thereafter be changed except: (a) in the case of a non-resident minor student at the time of enrollment whose parents have subsequently established legal residence in North Carolina; (b) in the case of a resident who abandons legal residence in North Carolina; and (c) in the case of a non-resident student at the time of enrollment who has established legal residence in North Carolina and has maintained that status for the preceding twelve months. PLEASE NOTE: Students pre-

viously classified as non-residents who feel they now meet the residence requirements must contact Registration Services for approval and for completion of the proper change of residence form.

4. A person holding a student F-1 visa cannot be classified as a resident for tuition purposes.

5. Foreign nationals holding an Alien Registration Card (Form I-551) and other foreign non-immigrants holding work permits (Visas A, G, I, K, N, TN) may be eligible for in-state tuition twelve months or more after the issue date of the document. In these cases, they must provide documenting evidence that they have lived in North Carolina for at least 12 consecutive months.

6. Ownership of property in or payment of taxes to the State of North Carolina will not, in itself, qualify a person for the in-state tuition.

7. Any students or prospective students who have reason to believe they have been classified incorrectly for tuition purposes must bear the responsibility for securing a ruling by stating the case in writing to the Director of Admission and Registration. Written request for a ruling shall be reviewed by the Director of Admission and Registration, who may contact the student to secure additional information. Upon receipt of this ruling, the student may appeal to the College Appeals Committee by making written request. A final residentiary decision by the College may be appealed to the State Residence Committee.

Student Financial Aid

Overview

Students who are enrolled or accepted for enrollment in an eligible program leading to a certificate, diploma, or degree may apply for financial assistance. Students must complete admission procedures required by the College. Individuals who are not U.S. Citizens or who are non-permanent residents are generally ineligible to receive financial aid. Contact the Financial Aid Office to determine eligibility.

In considering an applicant for aid, the student's living expenses are taken into account, in addition to tuition and fees. Please keep in mind that the mission of the Financial Aid Office is to compliment your existing family income, not to replace it. Students taking fewer than 12 semester credit hours, but at least 1 semester credit hour, may receive aid reduced in proportion to their academic enrollment.

Awards generally range from $400 to $4000 per year and come from one or more of the following sources: Federal Pell Grants, the Federal Work-Study Program, Local Scholarships, North Carolina Student Incentive Grants, and Federal Supplemental Educational Opportunity Grants (FSEOG). Federal Pell Grants and employment through the Federal Work-Study Program comprise the majority of aid awarded to students.

Students are encouraged (in some cases required) to attend consecutive terms until the program of study is completed, in order to remain in proper sequence. Receiving financial aid funds for the summer term is "optional." Students must notify the Financial Aid Office if they want their awards to include the summer session. The College will not automatically make financial aid awards to students for the summer session. Please note: Summer awards will reduce the fall and spring semester awards that students will receive.

The initial deadline for consideration is April 1. Late applications will be awarded accordingly. For more detailed information about the types of aid available, about eligibility, and about application procedures and policies, refer to the Student Guide, produced by the Department of Education, to the Central Piedmont Community College Student Financial Aid Handbook, available from the Financial Aid Office upon request, or call (704) 330-6942.

Satisfactory Progress Standard

To receive Title IV financial aid funds, students must meet the U.S. Office of Education's statutory requirements of satisfactory progress. This definition reads, "In order to become and remain eligible to receive Title IV funds, students must be making satisfactory progress."

To measure the student's progress in the program accurately, the policy must have a quantitative measure of progress. To quantify academic progress, the policy must set a maximum time-frame in which a student is expected to finish the program.

The policy also includes a qualitative measure of the student's progress, such as a grade point average.

In order to provide a fair and equitable opportunity for individuals to adjust to specific academic requirements, the Office of Financial Aid will provide a two-step process prior to denying financial assistance. Additionally, students will be able to use an appeal procedure to address decisions by the Office of Financial Aid.

Definition

In order for the schools to monitor the statutory requirement that a student is making satisfactory progress, the regulations require schools to develop and apply a consistent and reasonable standard of academic progress which must contain elements specified in the regulations.

The school's satisfactory progress policy for students receiving aid under the SFA programs must be at least as strict as the policy used for students who do not receive SFA.

The school's academic progress policy must include a qualitative measure of the student's progress, such as a required Grade Point Average. The school may determine its own requirements as long as it meets the minimum required by law and regulations.

To quantify academic progress, a school must set a maximum time frame in which a student is expected to finish the program. Regulations for an undergraduate program state that the time frame may not exceed 150% of the published length of the program.

Students may only receive aid for a maximum of 6 cumulative semesters of full-time study.

Governing Factors

- Title IV Financial Aid Recipients are governed by three requirements:
1) They must be enrolled in an eligible program. An eligible program is a course of study leading to a certificate, diploma or degree at a school participating in one or more of the student aid programs. Please refer to The Student Guide for more information.

2) The student is required to maintain a semester Financial Aid GPA of 2.0 (C Average) by mid-point of the program. Students will be reviewed for satisfactory progress at the end of each semester to determine if they are maintaining grade point requirements set forth by this policy. Grades A, B, C, D, and F will be counted in the Financial Aid GPA calculation. Withdrawals, "Incom-

pletes" and classes reported as "never attended" carry no point value, but are computed as part of the Financial Aid GPA. During any semester in which the student is awarded Title IV funds and then decides to audit, receives credit by examination or receives a withdrawal, that student may be liable to repay those funds.

3) In order to receive payment for courses, students must be enrolled in courses that are required for their program. Financial Aid recipients may receive a maximum of six cumulative semesters of full-time study (and three full-time semesters for a one year program) of full-time enrollment that is equivalent to three years. Note: 12 credits hours is full-time, 9 to 11 credit hours is 3/4 time and 6 to 8 credit hours is 1/2 time.

4) A student taking any College Without Wall course(s) must show a grade(s) before payment can be made. This requirement is due to the difficulty of tracking class attendance.

Progress is measured as follows:

Two-Year-Degree Program Category
Must meet the following standards:
0-12 hours attempted 1.5 overall gpa
13-25 hours attempted 1.7 overall gpa
26 and above hours attempted 2.0 overall gpa
One-Year-Degree Program Category (Diploma)
Must meet the following standards:
0-12 hours attempted 1.5 overall gpa
13 and above hours attempted 2.0 overall gpa

General Information

Non-credit remedial courses beyond one year and work transferred from other institutions are included in determining the number of eligible semesters for financial aid.

Assessment of students satisfactory progress for financial aid will be each semester.

Students' satisfactory progress will be tracked continuously throughout their enrollment at Central Piedmont Community College. Remember, even though students may not have previously applied for, or received, student financial aid, they may be in one of the two stages that lead to probation and then to suspension of the assistance.

In order to provide a fair and equitable opportunity for students to adjust to specified academic requirements, the Office of Student Financial Aid will provide a two-stage process prior to denying financial assistance. The stages are:

Probation: If students fail to meet the requirements set forth under the Satisfactory Progress Policy definition, they will be placed on probation. They will be officially notified of their status. Tracking of satisfactory progress is a student responsibility and the student should not totally rely on the school's notification.

Suspension: Students who fail to complete the necessary requirements outlined in the Satisfactory Progress Standard for two terms during their entire period of enrollment at CPCC will immediately be placed on suspension. The College will notify them of their status.

Students have the opportunity to appeal suspension to the Student Financial Aid Committee. Tracking of satisfactory progress is a student responsibility and should not totally rely on the school's notification.

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Appeal Process

Students who fail to meet the definition of the Satisfactory Progress Policy and/or other related policies, are suspended and have extenuating circumstances, may appeal to the Financial Aid Committee for reinstatement of their financial aid. The appeal must be in writing and will be voted on at a regularly scheduled meeting of the Financial Aid Committee. Students are asked to include supporting documentation with their appeal. Examples of supporting documentation could be verification of hospitalization of the student or an immediate family member or death of an immediate family member.

Reinstatement of Aid After Suspension

If a student attends one semester of classes and carries at least one credit hour in his /her program while suspended from financial aid and makes satisfactory progress according to the definition, terms and conditions set forth in the policy, the student's status will return to probation. Whether approved by the Financial Aid Committee or approved after one semester of satisfactory progress, the student's status upon reinstatement will be probation. It will remain as such unless the student again goes on suspension. Pell Grant will automatically be reinstated at the end of the semester, within the academic period. Note: The academic period is from Fall Semester through Summer term. Other types of assistance will be reinstated based on availability of funds.

First Degree Waiver

Students wishing to apply for financial aid after the completion of a post-secondary degree must request a first degree waiver.

Contact the Financial Aid Office for detailed instructions.

Verification

Institutions participating in Title IV funding for financial aid are required by federal mandate (Higher Educational Amendments of 1986) to check some of the information that students provide on their applications. The verification process at CPCC is mandated for specific financial aid applicants. Students must provide copies of student/parent federal tax return and/or documentation of other information. Additional supporting information may be required.

More information about this requirement is available from the Financial Aid Office upon request.

Financial Aid: Sources and Guidelines

Note: *Only students who are taking classes required for their declared program completion are eligible for financial aid.*

Federal Pell Grant

The Federal Pell Grant program provides federal funds for qualified students who enroll in an eligible program which is at least one year. The grant applies to classes required for that program. The grant, which does not have to be repaid, is based on schedules and formulae approved annually by the U.S Congress.

Students with Bachelor's degrees are not eligible.

Federal Work-Study

A major form of financial aid available to students consists of employment through the College under the Federal Work-Study Program.

A schedule is arranged around students' classes so that students work part time either on the Central Campus or at Area Centers. The hourly rate is equal to at least the federal minimum wage, and students typically work 20 hours per week.

Federal Supplemental Educational Opportunity Grant (FSEOG)

The Federal Supplemental Educational Opportunity Grant Program provides aid to students based on demonstrated exceptional financial need with outside resources considered in need determinations, and on the availability of funds at the College. These grants do not have to be repaid.

Students with Bachelor's degrees are not eligible.

North Carolina Incentive Grant

Legal residents of North Carolina who are accepted for enrollment or who are enrolled full time in good standing in an undergraduate program of study in an eligible college, university, technical, or vocational school in North Carolina may apply for a Student Incentive Grant to help pay their educational expenses. Students must demonstrate substantial financial need as determined through a need analysis application. The amount of each grant will be based on the individual student's demonstrated financial need in relation to resources and cost of education. Students must apply before March 1.

This grant is not available during the summer session.

Students with Bachelor's degrees are not eligible.

Vocational Rehabilitation Financial Assistance

In order to qualify for Vocational Rehabilitation financial assistance, a student must have a mental or physical disability which is a barrier to employment. There must also be a reasonable expectation that, as a result of vocational rehabilitation services, the person will become gainfully employed. Each rehabilitation program is designed individually for and with the student.

The amount of the award is based on need and the type of program in which the student is enrolled. It generally pays for tuition and fees; for some books and supplies; and, in some cases, for supportive services such as interpreter services, attendant services, and transportation.

Students should contact the Vocational Rehabilitation Office nearest their home or the North Carolina Division of Vocational Rehabilitation Services, P.O. Box 26053, 805 Ruggles Drive, Raleigh, NC 27611-6053 or call (919) 733-3364.

Scholarship Program

Introduction

Central Piedmont Community College Scholarship Program provides assistance to new and returning students showing academic achievement. Scholarships will assist with meeting the student's total cost of attendance.

The scholarship program at Central Piedmont Community College consists of two kinds of awards: merit-based scholarships and need-based scholarships. A financial aid application must be completed for scholarship evaluation, unless otherwise specified. Completing an application early on permits the office an opportunity to offer early assistance.

Students do not usually apply for specific scholarships at Central Piedmont Community College; instead, all applicants are considered for all available scholarships. Students should contact the Division Director responsible for their program for additional scholarship information.

Scholarships are made available to the recipient on a prorated basis each semester during the academic year. An award for a second year may be made upon approval of a new application and continued satisfactory academic performance.

Unless otherwise specified, scholarship applications are available from the Financial Aid Office on the Central Campus. Questions regarding application and selection should be directed to the Financial Aid Office at (704) 330-6579.

Donors of scholarships should direct these tax-exempt contributions to the CPCC Foundation, Incorporated, a non-profit, 501(c)(3) foundation that supports and supplements educational programs, projects, and scholarships at CPCC for which funds from other sources are unavailable or inadequate. Questions regarding the establishment of scholarships and requests for other scholarship donor-related information should be directed to the CPCC Foundation at (704) 330-6869.

Selection Procedure

The following describes the policy and procedure for awarding scholarships:

Scholarships are awarded using the FAFSA application process by identifying those students that are not eligible to receive federal funds. The FAFSA will determine whether the scholarship is need or merit based. Completing the FAFSA application will permit the Financial Aid Office to dispurse funds in a timely manner.

The Director of Financial Aid will contact each Division Director as scholarships are received. The Division Director is encouraged to submit names of eligible applicants who should be considered for scholarships. The recommendations should be made within ten working days once the Division Director is notified of scholarships.

If the Director of Financial Aid receives no response from the Division Director after ten days, the Director will be responsible for selecting students based upon a computerized listing containing student's current program and GPA.

Upon the receipt of recommendations of eligible applicants, the Financial Aid Committee will meet to select the recipients. The Financial Aid Office will then notify the student, the Foundation, and the Division Director. The Financial Aid Office will also ensure that students send thank you letters to the scholarship donor.

Students who are currently receiving any type of financial aid assistance and who are selected for additional awards are subject to any necessary adjustment of their previous award. These procedures are necessary to prevent any over-awards and to distribute CPCC's limited funds to a larger student population.

These procedures should enhance the award process and ensure that scholarship monies do not sit idle waiting for students to be nominated.

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The Following Is A List Of Available Scholarships:

James Moses And Stella Frost Alexander Scholarship
American Business Women Association
American Culinary Federation Scholarship
American Schlafhorst
Application Systems Forum Scholarship
Atlantic Health Plan
Betty Gragg Austin Memorial Scholarship
Barclays American Scholarship
Beall Family Scholarship
Bell South Community College Scholarship
Bill Belk
Patrice Burnside
Carolina Women In Investment Scholarship
Carolina's Medical - Martin Cannon Scholarship
Wayland H. Cato Scholarship
Charlotte Business League Scholarship
Charlotte Engineers Club Scholarship
Charlotte Business And Professional Women's Club
    Scholarship
Charlotte Regional Safety And Health Scholarship
Charlotte Quilters Guild
Charlotte Senior Forum Scholarship
Charlotte Woman's Club Scholarship
Tom Colligan Memorial Scholarship
CPCC Faculty/Staff Scholarship
CPCC General Scholarship
Creative Culinary
Lawrence Crow Memorial Scholarship
Crowder Construction Scholarship
Dickson Foundation Merit Scholarship
John Dunn Scholarship
Electro-Optics Scholarship
Executive Women International Scholarship
William Ficklen Scholarship
Couples Class/Myers Park Baptist Church
    Scholarship
First Union National Bank Scholarship
Susan Kelly Fontes Fund-CPCC Foundation
James H. Fryar Scholarship
Karl And Anna Ginter Foundation Scholarship
Gladys W. Hatch Music Endowment Scholarship
Joanne M. Garguilo
J.E. Hall Scholarship
Kenneth Hardin Memorial
W. Randolph Hearst Scholarship
Highland Creek Help
Stephen P. Hoefle Vocational Scholarship
Douglas & Marie Hort
Horticulture Scholarship
James Hughes Memorial Scholarship
Wright Hunter Scholarship
I.F.S.E.A. Scholarship
Institute Of Electrical And Electronics Engineering
    Scholarship
Nancy/Alex Josephs Scholarship
Bill Kemper Scholarship
Emil J. Kratt Scholarship
Law Enforcement Scholarship
Leon Levine Scholarship
Lori M. Martin Memorial Scholarship
Virginia Mathis Memorial Scholarship
Beverly McKeithen Memorial Scholarship

Kevin P. McKechnie Scholarship
Vickie McKinney Scholarship
Mecklenburg General Contractors Scholarship
Memorial Scholarship Fund
Mermans Foundation Scholarship
Metrolina Business And Professional Women's Scholarship
Montagnard Scholarship
Montibello Garden Club Scholarship
Theresa Mullis Memorial Scholarship
NC Community College Scholarship
NC Petroleum Marketers Scholarship
Paralegal Club Scholarship
Pica/Weese
Mary G. Pickens Scholarship
Piedmont Club Scholarship
Piedmont Natural Gas Scholarship
Brian Bailey Pigg
Pilot Club Scholarship
Jimmie And Ronnie Pourlos Chemistry Scholarship
Professional Secretaries International Scholarship
Queen City Optimist Scholarship
Rankin Scholarship
Reeves Bros Scholarship
Retired Faculty in Technology Scholarship
Richmond Dental Cotton Scholarship
C. L. Robbins Fund
M.B. Rorie Scholarship
Russell Shriner Music Scholarship
Charles A. Stone Scholarship
Southern Bell Community College Scholarship
Margaret Tasker Stith Scholarship
Surtman Foundation Scholarship
United Mech Corp Scholarship
Van Every Scholarship
Wachovia Tech Scholarship
Washburn Graphics Scholarship
Rosalie C. Williams Business Scholarship
Pat Locke Williamson Scholarship
Lauren Wild Scholarship
Winchester Surgical Scholarship
WINGS Scholarship
Winn Dixie Scholarship
Women In Electronics Scholarship
Women In Transportation Scholarship

For more information, contact the Financial Aid Office at (704) 330-6942.

Veterans Affairs

Overview

Financial Aid for Qualified Recipients of Special U.S. Government Benefits Programs

This institution is approved by the North Carolina State Approving Agency for the enrollment of persons eligible for education assistance benefits from the U.S. Department of Veteran Affairs (VA). Entitled veterans, participants in the Montgomery G. I. Bill contributory program, active duty military in voluntary education programs, drilling National Guard, drilling Reservists, and eligible spouses and offspring who have applied, met all admissions criteria, been fully accepted, and actively matriculated may be certified to the U. S. DVA Regional office as enrolled and in pursuit of an approved program of education.

For information about monetary benefits contact the U. S. Department of Veteran Affairs Regional Office in Atlanta, GA.

For information about the available programs at this institution, contact the Campus Veterans Specialist at 1-888-442-4551.

Veterans, Eligible Persons, National Guard, Selected Reserves, and Active Military Personnel

The College provides educational opportunities at both college and secondary school levels for veterans, disabled veterans, eligible persons (spouse and/or dependents) of service-connected deceased or 100% service-connected disabled veterans, those missing in action, and prisoners of war.

For additional information regarding these benefits, which are administered by the United States Department of Veterans Affairs (DVA), contact one of the following offices:
- Department of Veterans Affairs, Regional Office, Atlanta, GA
- County Veterans Service Office
- District Office of the North Carolina Division of Veteran Affairs
- CPCC Office of Veterans Affairs

Montgomery GI Bill (Selected Reserve - Chapter 1606)

Members of the North Carolina National Guard (Air, Army) and Selected Reserves (Air Force, Army, Coast Guard, Marines, Navy) are eligible for educational assistance under the Montgomery GI Bill (Chapter 1606) which began July 1, 1985. Members must be serving a six-year enlistment or re-enlistment to qualify. Effective October 1, 1990, benefits became payable for development and deficiency courses.

For more information, contact the respective National Guard or Selected Reserve Command, the U.S. Department of Veterans Affairs, or the CPCC Office of Veterans Affairs.

Tuition Assistance

Tuition assistance, awarded by the respective branch of service, may be available to members of the National Guard or Active Duty Personnel.

Eligibility requirements are available at the member's unit command or from the CPCC Sponsor's Desk.

Tutorial Assistance

Tutoring for classes is available through the CPCC Academic Learning Center. If free tutorial is not available, the Department of Veterans Affairs will pay the cost of tutorial assistance.

Current Veterans Educational Benefits, Including Montgomery GI Bill

- Chapter 30 - Montgomery: Active duty since July 1, 1985
- Converters: Chapter 34/30 - Vietnam Era: Chapter 30 Eligible; Active duty since October 19, 1984
- Chapter 1606 - Montgomery: National Guard, Selected Reserves, since July 1, 1985
- Chapter 31 - Vocational Rehabilitation (service-connected, 20% or more disabled)
- Chapter 32 - Post-Vietnam Era, Veterans Education Assistance Program (VEAP)
- Chapter 35 - Spouses/Dependents (service-connected, 100% disabled or deceased
- Sections 903 and 901 - non-Contributory VEAP

Academic Requirements

"The law requires that educational assistance benefits to veterans and other eligible persons be discontinued when the student ceases to make satisfactory progress toward completion of his/her training objective. Benefits cannot be resumed unless DVA finds that the cause of the unsatisfactory progress or conduct has been removed and the program of education or training

to be pursued by the student is suitable to his/her aptitudes, interests, and abilities."*

* From: *Certification of Students Under Veterans' Laws, American Association of Collegiate Registrars and Admissions Officers.*

Veterans and other eligible persons follow the same standards of academic progress that apply to all CPCC students. These standards are described in the College Policies and Procedures section of this catalog.

Veterans and other eligible persons are required to seek academic assistance by contacting their instructor, counselor, advisor, or the CPCC Office of Veterans Affairs before academic difficulties place them on "Academic Intervention" or "Academic Suspension."

Reporting Procedures

Both CPCC and the recipient of tuition assistance are responsible for reporting status changes or lack of satisfactory academic progress, as specified by the respective branch of the service or agency.

Veterans and other eligible persons are responsible for and required to notify the CPCC Office of Veterans Affairs immediately of any pending or approved program changes, withdrawal from enrollment, or graduation. Veterans and other eligible persons are also responsible for and required to notify the CPCC Office of Veteran Affairs immediately of all pending and approved course substitutions and/or waivers. The student is required to promptly report all changes in status, course load adjustments and adjustments for poor attendance to the CPCC Office. Any overpayments must be repaid to DVA.

Class attendance is required. Instructors are required to submit CPCC "Veterans Exceptional Reports" through their department head to the CPCC Office of Veterans Affairs immediately after a student has missed two consecutive weeks or stops attending before the end of the semester.

"Full-term" attendance extends through the last scheduled class of the semester. CPCC instructors are required to report the last day of attendance promptly.

Academic requirements, reporting procedures, mitigating circumstances, and other information regarding veterans and eligible persons also apply to students who are members of the National Guard and Selected Reserves.

Records

"Records of Progress" are kept by the College on both veteran and non-veteran students. Progress records (grade reports) are furnished to all students, veterans and non-veterans, at the end of each semester.

For assistance or more information contact the CPCC office of Veterans Affairs by calling (704) 330-6602.

All policies are subject to change based on institutional & federal guidelines.
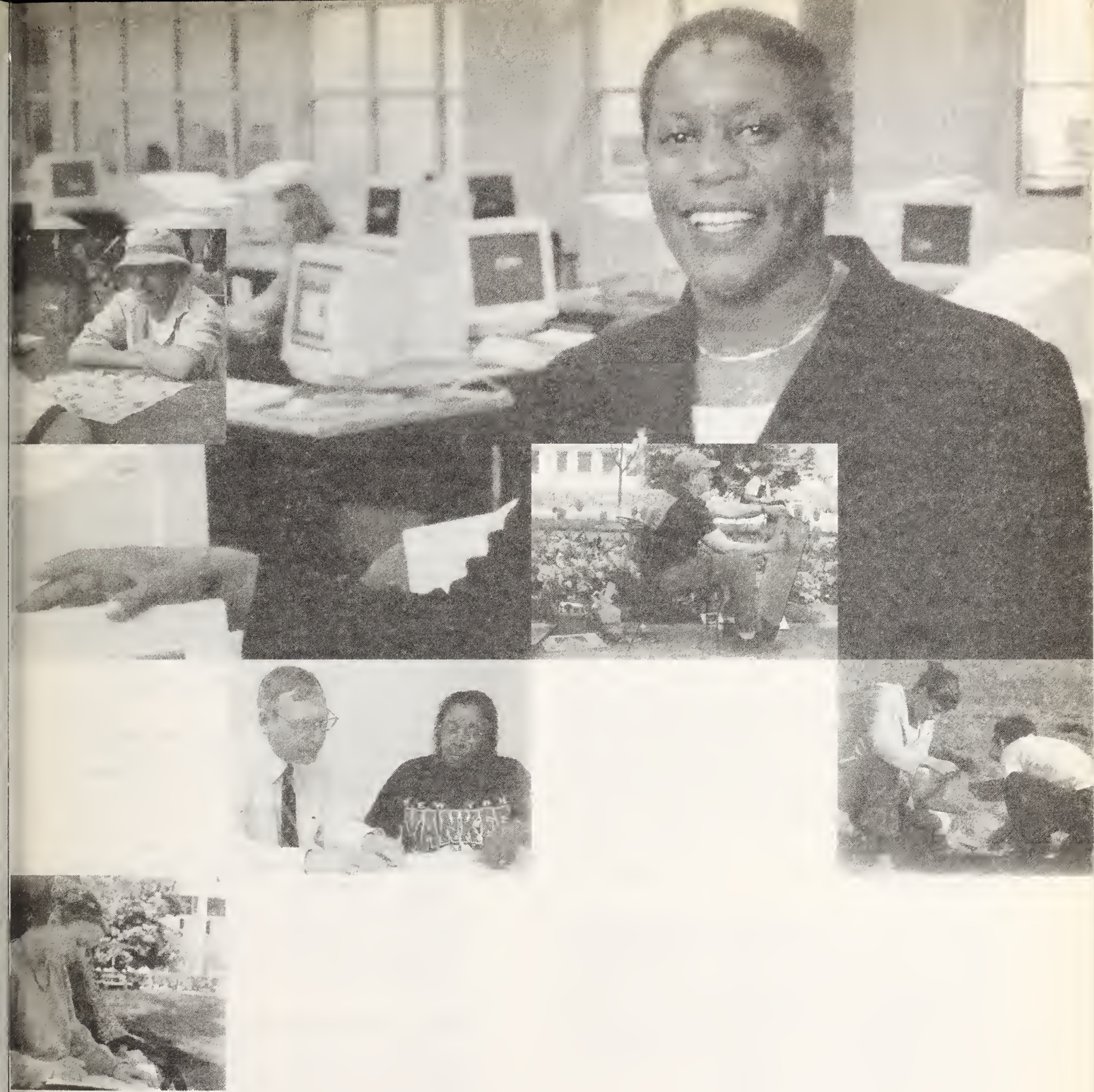
..............*College Policies and Procedures*

Policies and Procedures

Academic Advisement

All prospective undecided students can receive advising assistance in the Welcome Center on Central Campus and at the three area centers. Students who have declared a program major are automatically assigned a faculty advisor.

Academic Honors

Graduation Ceremony Honors

Graduation with honors designation (wearing cords at graduation ceremony) will be determined by program GPA. If a student simultaneously graduates from two or more programs with an honors level GPA in one program and not in the other, the student will graduate with honors.

President's List

To honor students for outstanding academic achievement, the College publishes a President's List at the end of each term, recognizing students enrolled in curriculum programs who meet the following requirements:
- In a given term, have completed at least 12 hours of credit in courses numbered 100 through 299 and
- In a given term, have achieved a 4.00 grade point average with no I's or W's.

Deans' List

To honor students for outstanding academic achievement, the college publishes a Deans' List at the end of each term, recognizing students enrolled in curriculum programs who meet the following requirements:
- In a given term, have completed at least 12 hours of credit in courses numbered 100 through 299 and
- In a given term, have achieved a 3.50 or higher grade point average with no I's or W's.

Attendance

Absences seriously disrupt a student's orderly progress in a course, and often a close correlation exists between the number of absences and the final grade. Although an occasional absence might be unavoidable, the absence does not excuse a student from meeting the requirements of the missed class. The student is responsible for preparing all assignments for the next class and for completing work missed. Instructors are responsible for establishing appropriate course attendance requirements and for informing students of those requirements on course syllabi distributed at the beginning of the academic term.

A student who for any reason cannot complete a credit course may officially withdraw prior to the last 25% of the academic term and receive a withdrawal "W" grade. Exceptions to the deadline will be made in hardship cases with the approval of the group dean. A "W" will remain on the transcript. A "W" will not count as credit hours attempted.

A student with a pin number may withdraw by dialing CHRIS (Computer Handled Registration Information System) 330-6970; or by contacting registration personnel on any CPCC campus by telephone or in person.

Auditing Courses

Students who wish to audit a course must complete an Audit Agreement form, get the course instructor's signature, and submit the Audit Agreement to the Registration Center by the 30% date of the class. Registration procedures and fees for an audited class are the same as those for regular and non-credit enrollment. Certain courses, however, may be designated as inappropriate for audit. Non-credit courses may not be audited without permission from the Dean of Corporate and Continuing Education. No student will be allowed to change from an audit to a credit designation or from a credit to an audit designation after the 30% date of the class.

The hours of an audited course will be counted as part of a student's load and will be subject to overload restrictions. A student may audit a course only once, and all those doing so must adhere to the instructor's classroom policies. A record of the audit will be entered on the student's transcript as AUD. The AUD carries no college credit and will not be converted to a letter grade.

Changing Grades

The instructor of record is the individual authorized and responsible for personally changing grades for his/her students. In an instructor's absence, the department head may change a grade for that instructor after consulting with him/her. In circumstances when the instructor cannot be located for an extended period of time and valid reasons exist for changing the grade, the division director is authorized to make the appropriate change. The procedures below are to be followed when a grade change is appropriate:
1. The instructor (or division director) will go personally to the Student Records Office to change the grade. She/he will present identification (CPCC ID or driver's license) to the Records Clerk.
2. The instructor (or division director) will personally complete and sign a form.
3. Using the signed change document, the Director of Admissions Registration and Records or a designee will personally change the grade on the original roster and initial and date the change.
4. The Director of Admissions Registration and Records or his designee will then change the grade on the student's computerized record and mail the student a copy of the revised transcript.

Course Load Regulation

Students registered for at least 12 hours of credit during fall and spring terms and for at least 9 hours of credit during summer term are considered full time students. Any hours over 18 during fall and spring terms and any hours over 13 during summer term are overload hours and require permission.

All students seeking overload approval for 19-20 hours during fall and spring terms and for 14-15 hours during summer term must secure approval from the faculty advisor, program chair, division director, or appropriate instructional dean.

All students seeking overload approval for 21 or more hours during fall and spring terms and for 16 or more hours during summer term must secure approval from the appropriate instructional dean.

Course Substitution

Course substitutions are permitted with the approval of the division director.

Course Waiver

Course waivers are permitted upon approval of the division director. No credit hours will be granted for courses that are waived.

College - Level Examination Program (CLEP)

Central Piedmont Community College is a national center for administering CLEP exams. The College grants CLEP credit according to the following guidelines:

Examination	Credit Granting Score	Credits Granted (Semester Hrs.)	Equated CPCC Course(s)
General			
English Composition with Essay	500	3	ENG 111
Natural Science	450	3	PHY 110
Subject			
American Government	47	3	POL 120
History of the United States I: Early Colonizations to 1877	45	3	HIS 131
History of the Unites States II: 1865 to Present	45	3	HIS 132
Calculus with Elem. Func.	50	8	MAT 271 & 272
College Algebra	48	3	MAT 161
College Algebra-Trig.	50	4	MAT 175
College French, Level II	42	3	FRE 211
	45	6	FRE 211 & 212
College German, Level II	44	3	GER 211
	48	6	GER 211 & 212
College Spanish, Level II	45	3	SPA 211
	50	6	SPA 211 & 212
English Literature	46	3	ENG 241
General Biology*	49	4	BIO 110
General Chemistry**	50	4	CHM 151
Intro. Business Law	51	3	BUS 115
	57	6	BUS 115 & 116
Intro. Psychology	47	3	PSY 150
Intro. Sociology	47	3	SOC 210
Principles of Accounting	47	8	ACC 120 & 121
Principles of Management	46	3	BUS 137
Principles of Macroeconomics	44	3	ECO 252
Principles of Microeconomics	41	3	ECO 251
Principles of Marketing	48	3	MKT 120

* Subject to satisfactory performance in any other laboratory science course at CPCC.

** Subject to the completion of CHM 152 with a minimum grade of C.

If the student performs satisfactorily on the exam, a grade of X will be recorded. The X grade carries no quality points, but credit hours will be given identical to the number normally assigned credit hours to that course at Central Piedmont Community College. The amount of CLEP credit awarded within a specific program will be determined by the appropriate department. CLEP policy is subject to change as necessary.

CLEP examinations are administered monthly by the CPCC Testing and Assessment Center on the Central Campus. Applicants should contact the Center for an application or additional information. Phone (704) 330-6886.

Credit By Examination

In order to receive credit by examination, a student must show convincing evidence of special aptitude or knowledge of the course material. A written, oral, and/or performance examination will be developed and administered by an instructor of the course. The examination is subject to the approval of the division director. If the student performs satisfactorily on the examination, a grade of X will be recorded. The X grade carries no quality points, but credit hours will be given identical to the number normally assigned credit hours to that course at Central Piedmont Community College. Except for a very few classes, a student does not have to be registered for the class he or she is seeking credit by examination; however the student does have to be a registered student at the time he or she applies for credit by examination.

Grading Policy

Student Grade Point Average

Students are graded according to the following grade point system.

Grade	Point Value	Description
A	4	Excellent
B	3	Very Good
C	2	Satisfactory
D	1	Poor
F	0	Failing

The following grades will not be used in computing the grade point average:

AUD	Audit
I	Incomplete
N	Never Attended
S	Satisfactory
U	Unsatisfactory
W	Withdrawal
X	Credit by Examination

Example:

MAT 175   4 credits,   Grade A = 4 points,   4 X 4 =16
ENG113   3 credits,   Grade D = 1 point,   3 X 1 = 3
SPA 111   3 credits,   Grade B = 3 points,   3 X 3 = 9
SPA181 lab, 1 credit,   Grade B = 3 points,   1 X 3 = 3
ACA 118   2 credits,   Grade C = 2 points,   2 X 2 = 4
Total Credits: 13 Total Points: 35
Divide 35 points by 13 credits = 2.692 GPA (Grade Point Average)

Three GPA's will appear on the student's academic record: (1) cumulative GPA, (2) program GPA, (3) term GPA.

Grades earned under the quarter system will retain their same value in calculating the GPA. The computer will be programmed to convert the GPA from quarter hours to semester hours for students' combined GPA.

Semester Hour Credits:
- 16 contact hours classroom work equals 1 semester hour of credit.
- 32 or 48 contact hours of labortory work equals 1 semester hour of credit.
- 48 contact hours of clinical work equals 1 semester hour of credit.
- 160 contact hours of work experience equals 1 semester hour of credit.

Withdrawal

When a student determines that he/she will be unable to complete courses in which he/she is currently enrolled, it is the student's responsibility to initiate procedures leading to a formal withdrawal ("W") in order to avoid a failing ("F") grade. To receive a "W" grade a student must withdraw before the last 25% of the academic term. Final dates for withdrawing from a course will be announced in CPCC's Class Listing Schedule and Telephone Registration Information. The instructor may also assign "W" at other times when circumstances warrant such action. A "W" will remain on the transcript and will not count as credit hours attempted. To receive credit, a student who received a "W" must re-register and pay for the course in a subsequent term. Financial aid recipients need to refer to the financial aid satisfactory progress policy to determine if schedule adjustments will affect financial aid.

Incomplete

An "I" (Incomplete) may be assigned when a student has persisted through the course and has successfully completed at least 90% of the requirements for passing the course or when the instructor has determined extenuating circumstances exist. A student must resolve an "I" (Incomplete) grade within 6 months from the end of the term in which the grade was assigned, unless the time period is otherwise specified by the division. When an I grade has been resolved, the final grade will be recorded beside the I (e.g., I/B) and the GPA will be recomputed. An I which is unresolved will be changed to the grade of I/F after 6 months.

Excessive I's, F's and W's

A student will not be allowed to register for a course in which he or she has received three I's, F's, and/or W's until permission is received from the department that offers the course.

Repeated courses

Repeated courses will appear on the student's transcript. Each attempt will be shown, but the student's cumulative and program GPA's will be recomputed to count only the last completed attempt.

Standards of Academic Progress

For students seeking a degree, diploma or certificate, certain standards of academic progress apply. These standards are designed to assist students in meeting their academic goals. Students must have a program grade point average (GPA) of 2.0 in the curriculum courses required for the degree, diploma, or certificate. In addition, for students enrolling in certain programs, a grade of C or better in certain courses may be required in order to receive the degree, diploma, or certificate from Central Piedmont Community College.

Academic Intervention: Students who are enrolled in a program and whose program GPA falls below the following categories will be placed on academic intervention. While on academic intervention, students will be limited to registering for the number of credit hours approved by their advisor or program counselor. Students on academic intervention may be required to register for Academic/Life Skills courses, Advancement Studies courses, or other recommended courses.

2-Year Degree Program Category

0-20	credit hours attempted	1.50 program GPA
21-40	credit hours attempted	1.75 program GPA
41-50	credit hours attempted	1.90 program GPA
51+	credit hours attempted	2.00 program GPA

1-Year Program Category

0-10	credit hours attempted	1.50 program GPA
11-20	credit hours attempted	1.75 program GPA
21-30	credit hours attempted	1.90 program GPA
31+	credit hours attempted	2.00 program GPA

Students in certificate programs will be placed on academic intervention when their program GPA falls below 2.0.

Academic Suspension

Following notice of academic intervention, students who do not raise their program GPA to the required level within two enrolled terms will be placed on academic suspension. During the term of academic suspension, the student is assigned to a program counselor for academic advisement. While on suspension from curriculum classes in the program, the student can take Academic/Life Skills, Advancement Studies courses or other assigned courses. Academic suspension may be appealed to the Dean of Student Development.

Grade Appeals Procedure

Students who believe that they have been graded unfairly in a course and who wish to appeal the grade should follow the Course Grade Appeals Procedure.

A part of faculty responsibility at Central Piedmont Community College is the assignment of student course grades according to methods which are professionally acceptable, communicated to everyone in the class, and applied to all students equally.

Any student who contests a course grade should attempt first to resolve the matter with the faculty member who assigned the grade. Failing to reach a satisfactory resolution, the student may appeal the course grade in accordance with the procedure outlined below. While a grade is being appealed, a student is obligated to abide by the written department policies concerning continuation in programs or continuation in courses with prerequisites.

    A. The student must consult initially with the faculty member who assigned the course grade.

B. If the conference between the student and the faculty member does not resolve the matter, then the student must present an appeal in writing to the head of the division within which the contested course grade was awarded. This written appeal must be filed within 30 calendar days, and must state the reasons for the appeal, identify the class, section and dates involved, identify the faculty member who assigned the course grade, and include an explanation of previous attempts at resolution. This will be the only document of record.

C. The division director will then confer with the student and the faculty member to seek resolution by mutual agreement. When appropriate, the program chair in which the course grade was assigned will be involved in this conference.

D. Failing such resolution, the division director must transmit the written appeal along with a written summary of the conference held with the student and faculty member to the appropriate dean within 5 working days. The dean will then confer within 10 working days with the student, faculty member, division director, and, when appropriate, program director. Based on these discussions, the dean will determine if there is enough information to render a decision to affirm the grade or to change the grade. The dean's decision will be final. The dean will inform in writing the results to the student, the faculty member, the program chair, and the division director. If the grade is to be changed, the dean will change the grade.

Graduation

Program requirements: The College reserves the option of changing the requirements for completing a degree, diploma, or certificate program at any time. With the change from quarter to semesters Fall 1997, quarter-based programs of study have been changed significantly. In some programs, a cross-walk establishes clearly the relationship between all old quarter courses and new semester courses. In other situations, courses were included in quarter-based programs that have disappeared as requirements in semester based programs, have been significantly changed, or have become a part of other courses. Additionally, some semester-based programs include totally new courses that did not exist in the quarter-based program. Therefore, students who were enrolled at CPCC prior to Summer Term 1997 must seek academic advice from program counselors, division directors, program chairs, or program faculty in order to move smoothly from the previous quarter-based program of study to the new semester-based program. The College is committed to providing excellent help as students manage the transition.

Returning students: When a student is not enrolled in program-related courses for three or more consecutive semesters, the requirements for program completion will be based on those requirements in effect when the student re-enrolls in the program, not on those in effect when the student originally entered the program.

Exceptions to requirements and catalog year changes can be made upon the approval of the division director. Sometimes such exceptions must be made because courses in an earlier curriculum program may no longer be offered.

GPA: A student must have a program 2.0 GPA or better to receive a degree, diploma or a certificate. Some programs may require a grade of C or better.

Credentials: An official high school transcript or equivalent must be on file, showing the date of graduation prior to certification. **Note:** Students who have an associate or a higher degree from an accredited college or university are not required to have high school transcripts on file.

Residence: A student must meet the Curriculum Program Residency requirements of the college.

Application: Graduation application dates are specified in the CPCC course schedule for each term. Students must apply within the dates specified. Graduation applications can be obtained at any of the campuses.

Processing of Degrees and Diplomas:

1. After receiving the graduation application, the certification staff will review all records of the student and mail the student a list of courses that must be completed prior to graduation, as well as a list of any incomplete documents.

2. After completing all the requirements, including successful completion of the final courses required for graduation, a notation of the degree or diploma or certificate and the date of graduation is entered on the student's CPCC transcript. The student's date of graduation will be the term (summer, fall, or spring), when all documents needed for graduation certification are on file in the student's folder.

3. Any graduate who would like a degree or diploma, suitable for framing as a memento, needs to fill out a Degree/Diploma Order Form in the Graduation Certification Office. This form is then presented to the Cashier's Office with payment of $12.50* order fee. (Students ordering after established deadlines will pay $15.00.*)

*Note: This cost is subject to change without notice.

Program Help

Program information, including admission requirements, is available by calling Telephone Registration, CHRIS (Computer-Handled Registration/Information System) at (704) 330-6970. This service is available twenty-four hours a day, seven days a week. To find the telephone code for information about a specific program, consult the current CPCC class schedule.

Repeating Successfully Completed Courses

Curriculum Courses

With the exception of a very few DAN - and MUS - prefix courses that can be repeated more than two times to meet degree requirements, students must obtain departmental approval before enrolling in a course which they have already successfully completed twice. PED, CUL and HRM courses, however, may not be repeated after one successful completion.

Continuing Education Courses

Effective July 1, 1993, students who take an occupational extension course more than twice within a five-year period will be charged the full cost of the course.

Senior citizens who are legal residents of North Carolina and who wish to enroll in an occupational extension course will not be required to pay for taking the course twice. Senior citizens who take an occupational extension course more than twice within a five-year period must pay for the cost of the course.

Students may repeat occupational extension courses more than once if the repetitions are required for certification, licensure, or recertification.

Self-supporting classes (Corporate and Continuing Education for example) may be repeated any number of times.

Readmission from Suspension

Central Piedmont has an open door policy and does not suspend a student from the College for academic reasons. However, according to the Grading Policy, when a student has performed below standards of progress for a specified period of time, that student may be suspended from taking curriculum classes for a semester.

When a student's program GPA drops below standards, the student is placed on Academic Intervention. If Intervention has occurred for two consecutive terms and the program GPA at the end of the second semester of Intervention is still below the Standards of Progress, the student is then placed on Suspension for one semester.

During that semester, the student has several options:
• Take classes in Advancement Studies, ESL, Study Skills, or Career Development that can provide the student with skills needed to improve class performance;
• Take Continuing Education classes;
• Take no classes;
• Change programs.

When the student is suspended, the program counselor provides academic advisement, rather than a faculty advisor in the program. When the student returns after the semester of Suspension, the student is on probation and continues to be counseled by the program counselor. If, at the end of the probationary semester, the GPA meets the Standards of Progress, the student is returned to a faculty advisor in the program.

If the program GPA at the end of the probationary semester remains below Standards of Progress, the student is again suspended with the same options as above. However, if the student has made progress toward improving the program GPA, the program counselor can waive the suspension and allow the student to continue for another semester.

Students on Second Intervention, Suspension, or Probation are not allowed to register until the current semester ends. This option has been chosen by the College, rather than the alternative of canceling classes for these students.

Student Academic Integrity Policy

The purpose of the CPCC Code of Student Academic Integrity (see CPCC Student Handbook) is to support the continued growth and development of a strong academic community based on the principles of academic honesty and integrity.

Although the commitment to maintaining and enforcing high standards of academic honesty and integrity at Central Piedmont rests with all members of the College community, faculty members, in particular, are charged with taking measures to preserve, transmit, and model those standards through example in their own academic pursuits and in the learning environment which they create for their students. Students, likewise, as members of the College's academic community, are obligated to take an active role in the preservation of the standards of academic honesty and integrity, encouraging others to respect those standards. It is the expectation of the College that students maintain absolute integrity and high standards of individual honor in their academic work. Conduct that violates the standards of

academic honesty and integrity and is subject to disciplinary action may include, but is not limited to, cheating, fabrication and falsification, plagiarism, abuse of academic materials, installation of a computer virus, and complicity in academic dishonesty. Any student who violates the CPCC Code of Student Academic Integrity is subject to academic disciplinary action. Such action may include, but is not limited to, entry of the incident in the records of the Office of Student Development; reduced grades; and dismissal from College classes, programs, and activities.

Student Conduct

The College reserves the right to maintain a safe and orderly educational environment for students and staff. Therefore, when in the judgment of College officials, a student's conduct disrupts or threatens to disrupt the College community, appropriate disciplinary action will be taken to restore and protect the well being of the community.

Students are expected to conduct themselves in accordance with generally accepted standards of scholarship and morality. The purpose of the Student Code of Conduct (complete policy and procedures in the Student Handbook) is not to restrict student rights but to protect the rights of individuals in their academic pursuits.

Students should note that the possession, consumption, or distribution of alcohol or illegal drugs, or possession of weapons on the Central Campus or any other CPCC instructional site is specifically prohibited and regulated by state statute. Violators will be prosecuted by the authorities.

Student Grievance Procedure

Students wishing to appeal any decision affecting their status at Central Piedmont Community College should first appeal to the instructor or staff member making the decision. If students are not satisfied and the problem involves a program matter, appeal may be made through the appropriate division director to the Dean, to the Vice President for Instruction and to the President. Non-program matters follow the same route except through the Dean for Student Development. All such appeals should be in writing and state the basic facts of the case. If a student requires secretarial or other assistance in preparing the appeal due to his or her disability, such assistance will be provided upon request.

If, after presentation of a grievance to the appropriate administrator, a student is not satisfied, or if the grievance involves a concern or action relating to an administrator to whom the initial grievance would normally be made, appeal may be made to the President of CPCC.

Student Records (Transcripts)

The College maintains the position that students' records are their own property; therefore, this information is released only when a student signs a Records Release Form in the Office of Student Records. Students may have copies of their transcripts sent to any institutions or individuals they choose through the Office of Admissions and Records. They may also order copies for their own use. A $3.00 fee is required for each official transcript requested. Transcripts are not released if the student owes money to the College.

Policies and Procedures

Central Piedmont Community College, in fulfilling its responsibilities to students, must maintain accurate and confidential student records. The College staff recognizes the rights of students to have access to their academic and personal records in accord with existing College policy and the Family Educational Rights and Privacy Act of 1974 (Buckley Amendment).

Definition of Term "Educational Records"

These regulations, as defined under the provisions of the Family Educational Rights and Privacy Act of 1974, include files, documents, and other materials which contain information directly related to students and which are maintained by an educational institution or by an authority on behalf of the institution. The term educational record, under the provisions of the law, does not include the following:

1. Records of institutional, supervisory and administrative personnel which are in the sole possession of the maker and which are not accessible or revealed to any other person except a substitute for the above named personnel;

2. Records and documents of Security Officers of the institution which are kept apart from such educational records;

3. Records on students which are made or maintained by a physician, psychiatrist, psychologist, counselor, or other recognized professional or paraprofessional acting in their official capacity and which are made, maintained, or used only in connection with a provision for treatment for the student and are not available to anyone other than the persons providing such treatment, except that such records can be personally reviewed by a physician or other appropriate professional of a given student's choice;

4. Financial records of the parents of the students or other information therein contained;

5. Confidential recommendations if a given student has signed a waiver of the student's rights of access, provided such a waiver may not be required of the student;

6. Confidential letters or statements of recommendation which were placed in educational records prior to January 1, 1975, if such records or statements are not used for purposes other than those for which they were specifically intended; and

7. Medical records, physical examination results, reasonable accommodation request forms, or other medical information which are required to be kept apart from general educational records and treated as confidential in accordance with the Rehabilitation Act of 1973 and the Americans with Disabilities Act.

Control Provisions on Student Records and Student Information

1. Transcripts and other information are released only with written permission of the student. When information other than the transcript is released from the student's official record (Office of Student Records), the student will receive a copy of the release.

2. Students have the right to inspect their own records whether recorded in hard copy form or recorded in the form of magnetic disks and microfilm. Upon inspection, students are entitled to an explanation of any information contained in their records.

3. The official student file will not be sent outside the Counseling Office, Records Office, Admissions Center, Financial Aid Office, Veteran and Military Affairs Office, or other custodial office except in circumstances specifically authorized by the Dean for Student Development. The authorization for such special circumstances must be in writing.

4. All medical records, physical examination results, reasonable accommodation request forms, or other medical information must be collected on separate forms, maintained in separate medical files kept apart from a student's general educational records, and treated as confidential. Disclosure of such information may only be made at the express, written consent of the student to the following:
   a. Administrators, Department Heads and others involved in a request for reasonable accommodation or evaluation of qualifications for or performance in a course, program, service or activity;
   b. Department Heads and instructors for purposes of implementing and enforcing necessary restrictions and accommodations; and
   c. First aid and safety personnel if a known disability may require emergency treatment.

Release of Student's Educational Records to Educational Institutions, State and Federal Agencies

1. Such requests for confidential information shall not be honored without proper written consent by the student for the release of such records by the student except under conditions indicated in paragraphs 2 and 5 below.
   a. The written consent must specify the records or the specific data to be released, to whom they are to be released, and the reasons for release.
   b. Each request for consent must be specific, and each request must be handled separately.

2. Request for confidential information will be honored without prior consent of the student in connection with an emergency, if the knowledge of such information by appropriate persons is necessary (in view of a reasonable person) to protect the health or safety of the student or other persons. However, such a release shall have the approval of a Cabinet Officer unless it can be shown that, under the circumstances, time would not permit or that no Cabinet Officer was available.

3. The following "Directory Information" may be made available to the public by the College unless students notify the Dean for Student Development in writing, by the third week of the semester, that such information concerning themselves is not to be made available:
   a. Student's name and hometown;
   b. Major field of study or program;
   c. Dates of attendance, degrees, diplomas or awards received at the most recent previous educational institution; and
   d. Place of birth.
Request for non-disclosure will be honored by the College for only one academic semester at a time; therefore, requests

to withhold Directory Information must be filed with the Dean each term.

4. Information other than "Directory Information" - Any release of student information for public use or use by the media except that designated above (paragraph 3) must have prior written approval by the students involved.

5. Disclosure to Government Agencies - Properly identified and authorized representatives of or bona fide written requests from the Comptroller general of the United States, the Secretary of Health, Education and Welfare, the Department of Defense, an administrative head of a federal education agency, or state educational authorities may have access to student or other records which may be necessary in connection with the audit and evaluation of federal or state supported educational programs or in connection with the enforcement of the federal or legal requirements which relate to such programs or for the purpose of military recruiting. Routine requests for student data from such agencies as HEW, OEO, research agencies, and state reporting agencies may be honored without prior approval of the student only in formats where students are not identified.

6. Faculty and administrative officers of the College who demonstrate a legitimate educational need will be permitted to look at the official student file for a particular student.

7. Confidential information requested by other than federal or state agencies as specified in paragraph 5 above will be released only under the following conditions:

   a. An official order of a court of competent jurisdiction; or
   b. Subpoena (Students will be notified immediately by registered mail that their records are being subpoenaed).

8. Record of Who Has Access - A record of access to the official student file will be maintained within the file itself. This record will show the name, address, date and purpose of the person who has been granted access. All persons who have access will be included in this record except those institutional employees who, because of the nature of their duties, have been granted access.

Students' Rights to Question Content of Their Official Student Files

1. Students have the right to review their official records maintained by the College. Furthermore, students may question any inaccurate or misleading information and request correction or deletion of such data from their files.
2. All such requests will be sent to the Director of Admissions and Records and will become a part of that student's file.
3. All requests for correction of a student file will be acted upon within 45 work days of receipt of the request. If the custodian can verify that such data are, in fact, in error, appropriate corrections will be made and the student will be notified in writing when the correction has been completed. If an error cannot be readily substantiated, the request will be referred to an Ad Hoc Hearing Committee appointed by the Vice President for Education Support Services. After a student has had the opportunity to present the case to the hearing committee, the committee

will render a decision in writing stating the reasons for its decision. If the decision is in agreement with the student's request, the student will be permitted to review the file to verify that the change has been made correctly. If the student's request is denied, the student will be permitted to append a statement to the record in question, showing the basis for the disagreement with the denial. Such additions will become a permanent part of the record.

Annual Notice to Students of Their Rights Under Family Educational Rights and Privacy Act of 1974

The College policy on access to and release of student information will be made available to students, faculty and staff. This information will be placed in the Student Handbook annually.
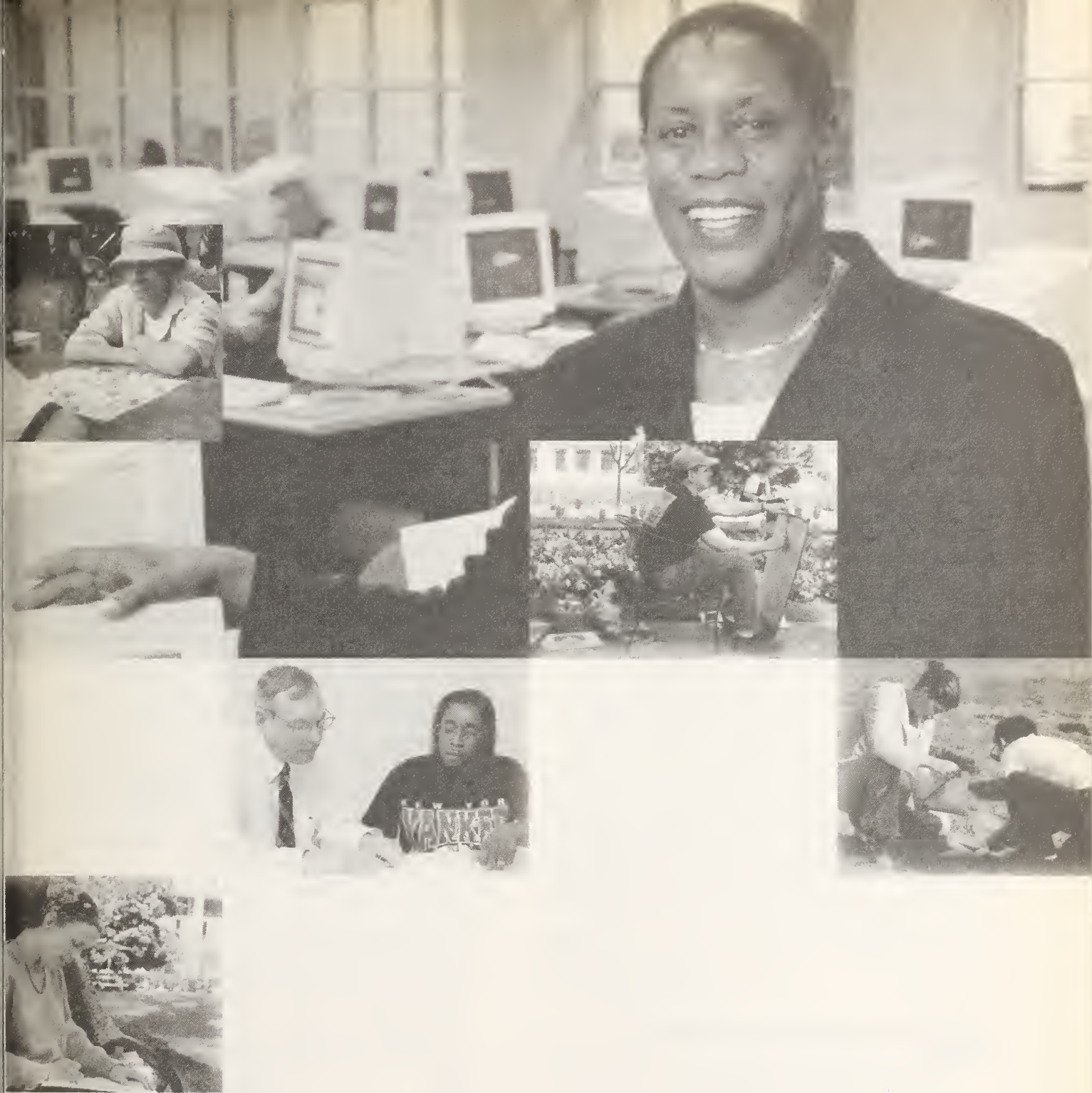
Pre-College Programs

Pre-College Programs

Adult Basic Education (ABE)

Adult Basic Education offers scheduled classes on the Central Campus and at many community locations to provide learning experiences which meet the basic educational needs of adults in Mecklenburg County. The ABE program is designed to provide learning experiences for adults 18 years old and older whose educational achievement is less than ninth grade, with special emphasis on those adults whose achievement is less than fifth grade. The ABE program also provides experiences which are intended to meet social and personal needs of adult students.

The ABE curriculum includes reading, writing, listening, speaking and mathematics skills. These skills are taught in the context of social studies, health and hygiene, elementary science, consumer education, and other areas of student interest.

For ABE information, call (704) 330-4117.

ABE — Adult Basic Education Course Descriptions

ABE 6001 Adult Basic Education Level I

Upon completion of this course, students should be able to identify names of the letters and sounds of the consonants; identify short and long vowel sounds; identify other vowel and consonant spellings; fill in application forms; use a dictionary; understand concepts of a paragraph; read a story and answer questions about the main idea and details; summarize, recall sequence of events, draw inferences and apply these inferences to everyday life; add and subtract one-digit to multi-digit numbers; multiply and divide one to three-digit numbers; and subtract from zero and multiply with zeros.

ABE 6002 Adult Basic Education Level II

Upon completion of this course, students should be able to form and read new words by adding inflectional endings, prefixes, and suffixes; select appropriate meanings of words; form sentences from phrases; identify topic sentences in paragraphs and the supporting details; add, subtract, multiply, and divide fractions, mixed numbers and decimals; find the percent of a number and determine what percent one number is of another; identify ratios and how to determine a proportion; compute with measures; add, subtract, multiply, and divide positive and negative integers.

Adult Basic Literacy Education (ABLE)

ABLE is a basic skills program which offers an innovative approach for adults who want to read, write, or calculate at an adult level. The program combines the use of microcomputers, video systems, audio tapes, and specialized programming to teach adults whose reading and math skills are below a ninth grade level. Instructors and tutors work one-on-one or in small groups to guide students through program materials and help with use of the equipment.

Instruction in the ABLE program is free for adults 18 years or over. The ABLE program seeks to produce adult literacy by amassing an array of educational media and teaching techniques in one location. The ABLE method speeds the educational process of adult non-readers and enhances their chances for success.

For ABLE information, call (704)330-6971.

ABL — Adult Basic Literacy Education Course Descriptions

ABL 6003 Basic Reading Level I

Upon completion of this course, students should be able to identify names of the letters and sounds of the consonants; identify short and long vowel sounds; identify other vowel and consonant spellings; fill in application forms; use a dictionary; understand concepts of a paragraph; read a story and answer questions about the main idea and details; summarize, recall sequence of events, draw inferences, and apply these inferences to everyday life.

ABL 6013 Basic Reading Level II

Upon completion of this course, students should be able to form and read new words by adding inflectional endings, prefixes and suffixes; select appropriate meanings of words; form sentences from phrases; identify topic sentences and the supporting details in paragraphs.

ABL 6004 Basic Math Level I

Upon completion of this course, students should be able to add and subtract one-digit to multi-digit numbers, multiply one- to three-digit numbers, divide one- to three-digit numbers, subtract from zero and multiply with zeros.

ABL 6014 Basic Math Level II

Upon completion of this course, students should be able to add, subtract, multiply and divide fractions, mixed numbers and decimals; find the percent of the number and determine what percent one number is of another; identify ratios and how to determine a proportion; compute with measures; add, subtract, multiply, and divide positive and negative integers.

ABL 6015 Basic Grammar Level II

Upon completion of this course, the student will be able to identify subjects and predicates; distinguish between verbs, nouns, pronouns, adjectives, adverbs, prepositions, and articles; form sentences from phrases; identify clauses; use correct synonyms, antonyms and homonyms; punctuate sentences; and write letters.

Adult High School Diploma (HSD)

The Adult High School Diploma program leads to a diploma granted by the Charlotte-Mecklenburg Board of Education.
- Admission into the program requires that an individual be eighteen years old or older. An official transcript, in a sealed envelope from the school last attended, must be sent or presented for evaluation by CPCC.
- For graduation, the Board requires:

English	4 units
Math	3 units (including Algebra)
Government/Economics	1 unit
US History	1 unit
World Cultures/History	1 unit
Biology	1 unit
Earth Science/Ecology	1 unit
Physical Science	1 unit
Electives	7 units

The North Carolina Competency Test
- HSD classes are held on the central campus and at off campus locations.
- There is no charge for HSD classes; however, students must purchase their textbooks.
- Tuition is charged for some electives.

For more information, call (704) 330-6864 or 330-5013.

HSD - Adult High School Course Descriptions

The courses listed below have been endorsed by the Charlotte-Mecklenburg School System. Based on a review of the individual's transcript, a student will be advised about the appropriate course(s) to take. Successful completion of selected course(s) will result in obtaining a diploma from Charlotte-Mecklenburg Board of Education through CPCC.

English:

HSD 6002 High School Diploma English 108:
Prerequisite: Placement Test

This course introduces the basic study of grammar and develops writing mastery through the writing process. Types of writing include narrative and descriptive paragraphs and essays. Vocabulary development, reading comprehension, and oral communication skills are also introduced.

HSD 6003 High School Diploma English 105
Prerequisite: English 108 or Placement Test

This course expands on skills in reading, writing, and oral communication that were introduced in English 108. New concepts and skills are added to give students a basic foundation in English grammar, punctuation, and vocabulary. Students are expected to demonstrate a mastery of these skills in process writing samples.

HSD 6004 High School Diploma English 103:
Prerequisite: English 105 or Placement Test

Based on skills mastered in English 105, students will increase their knowledge of grammar, reading comprehension, and vocabulary by focusing on the following: the writing and punctuation of a variety of sentence types, a review of the parts of speech, the regular use of the newspaper, and a review of basic Latin and Greek roots and suffixes. A major emphasis in this course will be on writing persuasive research papers.

HSD 6005 High School Diploma English 107:
Prerequisite: English 103 or Placement Test

This course emphasizes multi-cultural literature with a focus on understanding the definition and application of certain literary terms as applied to selected passages. Writing includes the development of comparison-and-contrast research papers relating to literary selections. Application of grammar skills learned in all levels of English is reviewed.

Mathematics:

HSD 6012 Foundations of Mathematics:
Prerequisite: Placement Test

This course is designed to give students the opportunity to review and practice the basic skills of arithmetic. Topics covered include addition, subtraction, multiplication and division of whole numbers, decimals, and fractions. Problem-solving skills and estimation are included throughout the course.

HSD 6013 Applications of Mathematics:
Prerequisite: Placement Test

This course expands the basic math skills to include the solution of word problems involving percent applications, proportions, reading charts and graphs for information, estimation, working with measurement, and basic geometry concepts. Applications of the use of math in real-life situations are emphasized throughout the course.

HSD 6014 Pre-Algebra:
Prerequisite: Placement Test

This course builds a foundation for algebra. Topics covered include subsets of the real numbers, simplifying radicals, properties of the real numbers, prime factorization, the language of algebra, working with signed numbers, combining like terms, solving first degree equations, setting up and solving word problems, solving and graphing inequalities.

HSD 6040 Algebra:
Prerequisite: Placement Test

Upon completion of this course, students should be able to solve problems using the symbolism of algebra, solve first degree equations, recognize and graph linear equations, solve systems of two equation, manipulate literal equations, recognize and use of properties of real numbers, simplify expressions containing exponents, multiply polynomials, and factor polynomials.

HSD 6042 Algebra II:
Prerequisite: Placement Test

Upon completion of this course, students should be able to solve first degree equations and inequalities in one variable, solve a system of two equations in two variable both graphically and algebraically, graph first degree inequalities in one variable, factor quadratics, simplify second and third order radicals, simplify expressions involving integer or other rational exponents, solve second order radical equations, solve quadratic equations having real roots (by factoring, completing the square, and using the quadratic formula), and utilize a scientific calculator to evaluate powers or roots and rearrange formulas.

HSD 6044 Modern Geometry:
Prerequisite: Placement Test

This course stresses plane geometry with a brief coverage of trigonometry and solid geometry. Upon completion, students should be able to do simple proofs, solve problems relating to triangle congruence and similarity, do the basic geometric constructions, use a scientific calculator or table to evaluate a trigonometric function or find the missing angle, find the missing parts of a right triangle by trigonometry (including use or a scientific calculator), find perimeter/area/volume of certain geometric figures, and work with parallel lines.

History:

HSD 6022 United States History:
Prerequisite: None

Upon completion of this course, students should be able to interpret major events occurring in American history from 1865 to the present, including changes in social, economic, political, and foreign policy. Topics will include the Reconstruction, Westward Expansion, Industrial Development, The Great Depression, World Wars I & II, and events of the Cold War and Post-Cold War periods.

HSD 6023 Government and Economics:
Prerequisite: None

This course is designed to give students a basic overview of critical issues related to government and economics. The study of government emphasizes the United States Constitution as it relates to the structure of our national government and to the rights of individuals in our society. The study of economics involves a discussion of key economic systems and their influences on public issues. Application of these concepts to current events and practical situations is emphasized throughout the course.

HSD 6024 World Cultures:
Prerequisite: None

This course is a topical review of civilizations' beginnings in the Mesopotamian basin to an analysis of the political and economic climate fostering the democratization of the world in the modern era. Students should be able to develop an appreciation for the cultural differences and similarities of the peoples of the world as they relate to evolving economic, religious, social, and political customs.

Science:

HSD 6032 Physical Science
Prerequisite: None

This course introduces the basic laws and principles of chemistry and physics. Topics include the scientific method, motion, energy, machines, the nature of matter, atomic structure, chemical bonds, waves, light, sound, and electricity. Upon completion, students will be able to demonstrate an understanding of basic physical science concepts.

HSD 6033 Biology:
Prerequisite: None

This course is a basic study of biological concepts and principles of biology. Upon completion, students should be able to demonstrate an understanding of the nature of science, cell structure and function, chemical and physical basis of life, diversity and classification of living things, genetic inheritance, human anatomy and physiology, and the influence of human activity on the environment.

HSD 6038 Environmental Science
Prerequisite: None

This course introduces the principles of environmental science. Topics include ecosystems, populations, communities, interconnections of living organisms, conservation, effects of human activity on the environment, renewable and nonrenewable resources, and energy flow. Upon completion, students will be able to demonstrate an understanding of basic ecological concepts.

Electives:

These are offered tuition-free to students.

HSD 6052 Personal Development
The course is designed to give students an opportunity to discuss and practice skills that are necessary for personal success. Topics such as time management, effective study skills, and career exploration are examples of critical topics examined.

HSD 6065 Work-Based Learning
This course is designed to afford students a work-based learning experience; develop a personal job search strategy; develop job search skills; and develop an understanding of the work ethic.

HSD 6066 Oral Communications
This course is an introduction to basic oral communications. Covered in the course is oral communications tools, topics and speech delivery. Upon completion of this course, students will display and increased confidence in oral and interpersonal communications. Students will be able to evaluate other speakers and assess the importance of verbal and non-verbal communications in various settings.

HSD 6068 Computer Literacy
This course provides a brief overview of computer concepts. Emphasis is placed on the use of the personal computers and software applications for personal use as well as the work environment. Upon completion of this course, students will be able to demonstrate basic computer skills, using Microsoft Office Professional Applications, such as, Word, PowerPoint, and Excel. Students will also have a working knowledge of the Internet, and be able to successfully navigate the World Wide Web.

HDS 6071 Fundamentals of Family Nutrition
Upon completion of this course, students will be able to manage dietary choices for their families by considering the daily requirements for adults and children. Topics will include types of nutrients, diseases linked with malnutrition, developmental nutritional needs, and food pyramids. Students will be able to formulate personal nutritional goals that should lead to better health and improved overall performance.

HDS 6073 Keyboarding
This course is designed to introduce the mechanics of keyboarding. Emphasis is placed on correct techniques, and the development of speed and accuracy. Formatting simple correspondences, and simple computer floppy disk storage management are explored. Upon completion, students will be able to key with increased speed and accuracy using the touch system.

HDS 6075 Errors in Reasoning
Upon completion, students will be able to identify three types of errors people make in solving problems. Students will learn to verbalize a systematic problem solving process and apply the process to different problems. Each student will learn to observe and use all available facts to solve problems. These skills build confidence in problem solving.

HDS 6077 Unlocking the Printed Page
Upon completion of this course, students will be more confident with a variety of reading material. Students will learn the appropriate reading strategies for English, history , math, and science materials as well as short stories and essays. Emphasis will be placed on building students vocabulary through context clues, identifying relationships, and dictionary skills.

HSD 6079 Great Stories of the Bible:
The purpose of this course is to expose students to the literature of the Bible. Upon completion of this course, students will be able to compare and contrast interpretations from Jewish, Catholic, Protestant, and Muslim experience. Students will integrate writing, research and visual/performing art skills throughout the course of study.

HSD Modular Instruction:
Modular instruction is a group of experimental classes offered as an alternative to the regular classroom. It is an accelerated, competency-based program for self-motivated students who want to complete credits quickly and move to another class within the same term. In a teacher-paced format, the students work independently or in groups to complete assignments/tests.

Advancement Studies
The Advancement Studies Division of Arts and Sciences is an instructional program for students who have not reached college-level in the areas of English, reading, mathematics, biology or chemistry.

The philosophy of the Advancement Studies Division is that each student has unique educational needs and goals . Once these goals are identified, they can best be reached by allowing students to progress in an open, caring atmosphere.

Each course in the Advancement Studies Division has stated objectives and a system to help students accomplish those objectives. Initial student placement in developmental courses is based on individual college placement testing policies and procedures. Students should begin developmental course work at the appropriate level indicated by the College's placement test.

For more information, call (704) 330-6702 or 6709.

Advancement Studies Course Descriptions

BIO — Biology

	Lecture	Lab	Credit
BIO 090 Foundations of Biology	3	2	4

Prerequisites:
Corequisites: RED 090

This course introduces basic biological concepts. Topics includes basic biochemistry, cell structure and function, interrelationships among organisms, scientific methodology, and other related topics. Upon completion, students should be able to demonstrate preparedness for college-level biology courses.

CHM — Chemistry

	Lecture	Lab	Credit
CHM 090 Chemistry Concepts	4	0	4

Prerequisites: None
Corequisites: None

This course provides a non-laboratory based introduction to basic concepts of chemistry. Topics include measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gases, and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts necessary for success in college-level science courses.

ENG — English

Initial student placement in developmental courses is based on CPCC's placement testing policies and procedures. Students should begin developmental course work at the appropriate level indicated by the College's placement test.

	Lecture	Lab	Credit
ENG 060 Speaking English Well	2	0	2

Prerequisites: None
Corequisites: None

This course is designed to improve conversational skills. Emphasis is placed on practice using fluent standard spoken English. Upon completion, students should be able to converse comfortably in a variety of situations. This course does not satisfy the developmental reading and writing prerequisite for ENG 111 or ENG 111A.

	Lecture	Lab	Credit
ENG 080 Writing Foundations	3	2	4

Prerequisites: Appropriate Placement Test Score(s)
Corequisites: None

This course introduces the writing process and stresses effective sentences. Emphasis is placed on applying the conventions of written English, reflecting standard usage and mechanics in structuring a variety of sentences. Upon completion, students should be able to write correct sentences and a unified, coherent paragraph. This course does not satisfy the developmental reading and writing prerequisite for ENG 111.

ENG 090 Composition Strategies	3	0	3

Prerequisites: ENG 080 or Appropriate Placement Test Score(s)
Corequisites: ENG 090A

This course provides practice in the writing process and stresses effective paragraphs. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay. *This course satisfies the developmental reading and writing prerequisite for ENG 111 and ENG 111A.*

ENG 090A Composition Strategies Lab	0	2	1

Prerequisites: ENG 080 or Appropriate Placement Test Score(s)
Corequisites: ENG 090

This writing lab is designed to reinforce the skills introduced in ENG 090. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay.

MAT — Mathematics

Initial student placement in developmental courses is based on CPCC's placement testing policies and procedures. Students should begin developmental course work at the appropriate level indicated by that College's placement test.

	Lecture	Lab	Credit
MAT 060 Essential Mathematics	3	2	4

Prerequisites: Appropriate Placement Test Score(s)
Corequisites: None

This course is a comprehensive study of mathematical skills which should provide a strong mathematical foundation to pursue further study. Topics include principles and applications of decimals, fractions, percents, ratio and proportion, order of operations, geometry, measurement, and elements of algebra and statistics. Upon completion, students should be able to perform basic computations and solve relevant, multi-step mathematical problems using technology where appropriate.

MAT 070 Introductory Algebra	3	2	4

Prerequisites: MAT 060, or Appropriate Placement Test Score(s)
Corequisites: None

This course establishes a foundation in algebraic concepts and problem solving. Topics include signed numbers, exponents, order of operations, simplifying expressions, solving linear equations and inequalities, graphing, formulas, polynomials, factoring, and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

MAT 080 Intermediate Algebra	3	2	4

Prerequisites: MAT 070, or Appropriate Placement Test Score(s)
Corequisites: None

This course continues the study of algebraic concepts with emphasis on applications. Topics include factoring; rational expressions; rational exponents; rational, radical, and quadratic equations; systems of equations; inequalities; graphing; functions; variations; complex numbers; and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

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RDN — Reading

Initial student placement in developmental courses is based on CPCC's placement testing policies and procedures. Students should begin developmental course work at the appropriate level indicated by that College's placement test.

	Lecture	Lab	Credit

RED 080 Introduction to
College Reading   3   2   4
Prerequisites: Appropriate Placement Test Score(s)
Corequisites: None
This course introduces effective reading and inferential thinking skills in preparation for RED 090. Emphasis is placed on vocabulary, comprehension, and reading strategies. Upon completion, students should be able to determine main ideas and supporting details, recognize basic patterns of organization, draw conclusions, and understand vocabulary in context. *This course does not satisfy the developmental reading prerequisite for ENG 111 or ENG 111A.*

RED 090 Improved College Reading   3   2   4
Prerequisites: RED 080 or Appropriate Placement Test
Score(s)
Corequisites: None
This course is designed to improve reading and critical thinking skills. Topics include vocabulary enhancement; extracting implied meaning; analyzing author's purpose, tone, and style; and drawing conclusions and responding to written material. Upon completion, students should be able to comprehend and analyze college-level reading material. This course satisfies the developmental reading prerequisite for ENG 111.

RED 111 Crit Reading for College   3   0   3
Prerequisites: RED 090 or Appropriate Placement
Test Score(s)
Corequisites: None
This course is designed to enhance critical reading skills. Topics include vocabulary enrichment, reading flexibility, metacognitive strategies, and advanced comprehension skills, including analysis and evaluation. Upon completion, students should be able to demonstrate comprehension and analysis and respond effectively to material across disciplines. In addition, this course is designed to improve reading speed.

Compensatory Education (CED)

Compensatory Education offers scheduled classes for persons who have special learning needs due to a developmental disability or traumatic brain injury. Classes are offered on the Central Campus as well as in community agencies providing job training and employment. Classes are structured to meet the individual needs of each student.

The primary emphasis is on the basic life skills needed for successful employment and independent living. The curriculum covers a broad range of subjects, including reading, writing, math, health, consumer education, social studies, job seeking and other work related skills. Throughout the program, there is a strong emphasis on the practical application of these subjects to the challenges of daily life.

To be eligible for these classes, students must be 18 years old, no longer attending public school, and able to provide evidence of a developmental disability or brain injury. *These classes are not listed in the published schedule and all registration is done in class.*

For more information and a current class schedule, please call (704) 330-6033.

CED — Compensatory Education Course Descriptions

CED 6110 Consumer Education
Upon completion of this course students will have achieved competency on individual goals chosen from the following subjects: Basic Information, Money Management, Legal and Financial Matters.

CED 6111 Vocational Education
Upon completion of this course students will have achieved competency on individual goals chosen from the following subjects: Work Performance Skills, Vocational Awareness, Job Seeking Skills.

CED 6112 Health
Upon completion of this course students will have achieved competency on individual goals chosen from the following subjects: Physical Health, Mental Health.

CED 6113 Community Living
Upon completion of this course students will have achieved competency on individual goals chosen from the following subjects: Home Management, Food Management, Community Knowledge and Access, Community Services.

CED 6114 Math
Upon completion of this course students will have achieved competency on individual goals chosen from the following subjects: Prerequisite Skills, Time Telling, Money Skills, Functional Measurement, Addition, Subtraction, Multiplication, Division, Fractions, Decimals.

CED 6115 Language
Upon completion of this course students will have achieved competency on individual goals chosen from the following subjects: Pre-reading, Reading, Writing, Spelling, Grammar, Reading Enrichment.

CED 6116 Social Science
Upon completion of this course students will have achieved competency on individual goals chosen from the following subjects: Geography, Government, The Legal System, Current Events, American History.
*Based on student needs, skill areas from other courses may be added to any of these courses.

Academic English as a Second Language (Academic ESL)
(Also see Adult English as Second Language courses with prefix of LEP.)

The Academic English as a Second Language program prepares non-native speakers of English to function successfully in institutions of higher education and professional settings in the United States. Coursework provides knowledge of and practice in academic reading, grammar, listening, speaking, and composition. Among other skills, students learn to make presentations to groups, write a research paper, and take notes from classroom lecturers. Attention is also paid to the student's cultural awareness, particularly to that of the academic environment.

For more information, call the Division of English, Literature and Languages at (704) 330-6506.

Academic English as a Second Language Course Descriptions

	Lecture	Lab	Credit
EFL 030 ESL for Specific Purposes	3	0	3

Prerequisites: Depends on the particular topic
Corequisites: Depends on the particular topic

This course will provide instruction in academic and professional language for non-native speakers of English. Emphasis is placed on development of integrated language use for carrying out a specific academic task. Upon completion, students should be able to demonstrate improved language skills for participation and success within the particular topic area.

EFL 050 ESL for Academic Purposes 5 0 5

Prerequisites: Depends on particular topic
Corequisites: Depends on particular topic

This course will provide instruction in academic and professional language skills for non-native speakers of English. Emphasis is placed on development of integrated language skills for use in studying a particular content area. Upon completion, students will demonstrate improved academic language, content-specific vocabulary and skills, and cultural knowledge in the topic area.

EFL 061 Listening/Speaking I 5 0 5

Prerequisites: None
Corequisites: None

This course is designed to provide the basic oral/aural language skills needed for essential daily conversation on campus and in the community. Emphasis is placed on vocabulary building, communication in various social and academic situations, and various spoken grammatical skills. Upon completion, students should be able to produce and understand English dealing with routine topics using basic syntax and vocabulary skills.

EFL 062 Listening/Speaking II 5 0 5

Prerequisites: EFL 061, or placement test,
or consent of Division Director.
Corequisites: None

This course is designed to enhance intermediate listening and speaking skills of non-native speakers of English. Emphasis is placed on the ability to hold extended conversation and on the ability to understand extended spoken discourse. Upon completion, students should be able to demonstrate improved listening skills and strategies in a variety of settings.

EFL 063 Listening/Speaking III 5 0 5

Prerequisites: EFL 062, or placement test,
or consent of Division Director.
Corequisites: None

This course is designed to increase the ability and confidence of high intermediate-level non-native speakers of English in verbal expression and listening comprehension. Emphasis is placed on listening/speaking skills which would be appropriate for group discussions, oral presentations, and note taking. Upon completion, students should be able to successfully participate in high intermediate-level listening and speaking activities.

EFL 064 Listening-Speaking IV 5 0 5

Prerequisites: EFL 063, or placement test,
or consent of Division Director.
Corequisites: None

This course is designed to prepare advanced-level non-native speakers of English for academic and professional speaking and listening activities. Emphasis is placed on learning and practicing strategies of effective oral expression and comprehension of spoken discourse in informal and formal settings. Upon completion, students should be able to effectively participate in activities appropriate to academic and professional settings.

EFL 071 Reading I 5 0 5

Prerequisites: None
Corequisites: None

This course is designed to help those literacy skills achieve reading fluency in English at the beginning level. Emphasis is placed on basic academic and cultural vocabulary and reading strategies which include self-monitoring, and recognizing organizational styles and context clues. Upon completion, students should be able to use these strategies to read and comprehend basic academic, narrative, and expository texts. This course is intended for non-native speakers of English.

EFL 072 Reading II 5 0 5

Prerequisites: EFL 071, or placement test,
or consent of Division Director.
Corequisites: None

This course provides preparation in academic and general purpose reading in order to achieve reading fluency at the low-intermediate level. Emphasis is placed on expanding academic and cultural vocabulary and developing effective reading strategies to improve comprehension and speed. Upon completion, students should be able to read and comprehend narrative and expository texts at the low-intermediate instructional level. This course is intended for non-native speakers of English.

EFL 073 Reading III 5 0 5

Prerequisites: EFL 072, or placement test,
or consent of Division Director.
Corequisites: None

This course is designed to develop fundamental reading and study strategies at the intermediate level needed for curriculum programs. Emphasis is placed on building vocabulary and cultural knowledge, improving comprehension, and developing study strategies on basic-level college materials and literary works. Upon completion, students should be able to read and comprehend narrative and expository texts at the intermediate instructional level. This course is intended for non-native speakers of English.

EFL 074 Reading IV 5 0 5

Prerequisites: EFL 073, or placement test,
or consent of Division Director.
Corequisites: None

This course is designed to enhance the academic reading skills for successful reading ability as required in college-level courses. Emphasis is placed on strategies for effective reading and the utilization of these strategies to improve comprehension, analytical skills, recall, and overall reading speed. Upon completion, students should be able to comprehend, synthesize, and critique multi-disciplinary college level reading/textbook materials. This course is intended for non-native speakers of English.

EFL 081 Grammar I 5 0 5

Prerequisites: None
Corequisites: None

This course provides non-native speakers of English with a variety of fundamental grammatical concepts which enrich language skills and comprehension. Emphasis is on key basic grammatical structures and opportunities for practice which incorporate grammatical knowledge into various skills areas. Upon completion, students should be able to demonstrate comprehension and correct usage of specified grammatical concepts.

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Pre-College Programs

EFL 082 Grammar II   5   0   5

Prerequisites: EFL 081, or placement test, or consent of Division Director.

Corequisites: None

This course provides non-native speakers of English with a variety of basic grammatical concepts which enrich language skills and comprehension. Emphasis is on key low-intermediate grammatical structures and opportunities for practice which incorporate grammatical knowledge into various skills areas. Upon completion, students should be able to demonstrate by written and oral means the comprehension and correct usage of specified grammatical concepts.

EFL 083 Grammar III   5   0   5

Prerequisites: EFL 082, or placement test, or consent of Division Director.

Corequisites: None

This course is designed to provide high-intermediate non-native speakers of English with a knowledge of grammatical structures that improves academic communication. Emphasis is placed on using high-intermediate grammatical structures in meaningful contexts through exercised integrating the use of newly acquired structures with previously learned structures. Upon completion, students should be able to demonstrate improved proficiency, comprehension, and grammatical accuracy.

	Lecture	Lab	Credit

EFL 084 Grammar IV   5   0   5

Prerequisites: EFL 083, or placement test, or consent of Division Director.

Corequisites: None

This course is designed to give non-native speakers of English a full understanding of advanced grammatical structures and techniques. Emphasis is placed on oral and written communicative fluency through the study of advanced grammatical forms. Upon completion, students should be able to incorporate the structures covered in both spoken and written form, demonstrating improved proficiency, comprehension, and grammatical accuracy.

EFL 091 Composition I   5   0   5

Prerequisites: None

Corequisites: None

This course introduces basic sentence structure and writing paragraphs. Emphasis is placed on word order, verb tense-aspect system, auxiliaries, word forms, and simple organization and basic transitions in writing paragraphs. Upon completion, students should be able to demonstrate a basic understanding of grammar and ability to write English paragraphs using appropriate vocabulary, organization, and transitions. This course is intended for non-native speakers of English.

EFL 092 Composition II   5   0   5

Prerequisites: EFL 091, or placement test, or consent of Division Director.

Corequisites: None

This course provides preparation in low-intermediate academic and general-purpose writing. Emphasis is placed on writing as a process, paragraph development, and basic essay organization. Upon completion, students should be able to write and independently edit and understand the major elements of the writing process, sentence, paragraph, and essay. This course is intended for non-native speakers of English.

EFL 093 Composition III   5   0   5

Prerequisites: EFL 092, or placement test, or consent of Division Director.

Corequisites: None

This course covers intermediate-level academic and general-purpose writing. Emphasis is placed on the writing process, content, organization, and language use in formal academic compositions in differing rhetorical modes. Upon completion, students should be able to effectively use the writing process in a variety of rhetorical modes. This course is intended for non-native speakers of English.

EFL 094 Composition IV   5   0   5

Prerequisites: EFL 093, or placement test, or consent of Division Director.

Corequisites: None

This course prepares low-advanced non-native speakers of English to determine the purpose of their writing and to write paragraphs and essays to fulfill that purpose. Emphasis is placed on unity, coherence, completeness, audience, and the writing process; and the grammatical forms and punctuation appropriate for each kind of writing. Upon completion, students should be able to write unified, coherent, and complete paragraphs and essays which are grammatical and appropriate for the intended audience. This course is intended for non-native speakers of English.

EFL 095 Composition V   5   0   5

Prerequisites: EFL 094, or placement test, or consent of Division Director.

Corequisites: None

This course is designed to prepare advanced non-native speakers of English for college-level composition courses. Emphasis is placed on the study and process of writing formal essays and research papers and the analysis of literary, expository, and descriptive writings. Upon completion, students should be able to write and analyze professional and peer compositions and apply basic research principles. This course is intended for non-native speakers of English.

EFL 111 *English for Internationals I   4   0   4

Prerequisites: EFL 084 and EFL 094, or placement test, or consent of Division Director

Corequisites: EFL 181

This course is designed to prepare advanced non-native speakers of English for successful communication. Emphasis is placed on writing and editing of advanced level compositions for organization, grammatical correctness and clarity. Upon completion, students should be able to converse and write in various organizational formats. When registering for this class, students will automatically be registered for EFL 181, EFL Lab 1.

EFL 112 *English for Internationals II   4   0   4

Prerequisites: EFL 074 and EFL 064, or placement test, or consent of Division Director

Corequisites: EFL 182

This course is designed to refine academic reading and comprehension skills for advanced non-native speakers of English. Emphasis is placed on understanding academic texts and developing effective note taking skills in the various disciplines. Upon completion, students should be able to differentiate between main points, supporting and extraneous information, and take organized notes on lectures and texts. When registering for this class, students will automatically be registered for EFL 182, EFL Lab 2.

Pre-College Programs

EFL 181 *EFL Lab 1   0   2   1
Prerequisites: None
Corequisites: EFL 111
This course is designed to enhance the preparation of advanced non-native speakers of English for successful communication as required in college-level courses. Emphasis in placed on the writing and editing of compositions for grammatical accuracy and clarity through the use of supplementary learning media and materials. Upon completion, students should be able to converse and write in various organizational formats.

EFL 182 *EFL Lab 2   0   2   1
Prerequisites:
Corequisites: EFL 112
This course is designed to enhance reading and comprehension skills for advanced non-native speakers of English. Emphasis in placed on understanding academic texts and developing effective note taking skills through the use of supplementary learning media and materials. Upon completion, students should be able to differentiate between main points, supporting and extraneous information, and take organized notes on lectures and texts.

*This course is a transfer elective for students whose first language is not English.

General Educational Development (GED)

The GED program offers another option for students who have not completed high school and leads to a high school equivalency diploma issued by the North Carolina Department of Community Colleges.
• Admission to the program requires that an individual be at least eighteen years old. A pre-test is administered to evaluate performance levels and determine whether the student is ready for the GED tests or whether preparation is needed through GED classes.
• To earn the GED diploma, a student must pass five individual tests: writing skills (including a written essay), mathematics, science, social studies, and literature.
• Students needing to prepare for the GED tests enroll for classes on the central campus or in off-campus centers. These classes allow students to progress at their own pace and to schedule attendance to best suit their needs.
• There is no charge for pre-testing or for GED classes.
• Students may purchase books to assist with their studies. A fee of $7.50 is charged for the GED test.
For more information, call (704) 330-6949.

GED-General Educational Development Course Descriptions

GED 6001 General Educational Development: This course prepares students to pass the final GED test. Based on a pre-test, instruction is tailored to meet needs of the individual student either in structured classes on the Central Campus or on an individualized basis at Area Centers. Students complete the course when they earn a cumulative score of 250 on the post-test and/or are certified by the instructor.

GED 6005 General Educational Development (Final testing): This course/test is the successful completion of the GED test battery. A cumulative score of 225 with no individual test score below 40 indicates successful completion.

Adult English As A Second Language (ESL)

The Adult ESL program provides English language instruction to international adults who are immigrants or refugees. Courses are designed at beginning and intermediate levels to emphasize language skills in social and work settings.
The Adult ESL program seeks to prepare students with the cultural knowledge and skills they need to function in English in their multiple roles as adults. The program endeavors to empower students with the English language skills needed to attain the following goals:
• To become informed participating members of their community.
• To become literate in workplace/training context
• To become independent and confident learners
The curriculum is flexible and reflects the needs of the students. Classes meet on the Central Campus and at a variety of locations throughout the community. For more information, call (704) 330-4154.

Adult English as a Second Language Course Descriptions

LEP 6005 Introduction to ESL Literacy Skills
Introducing ESL Literacy Skills
These courses provide an *introduction* to learning and practicing language skills needed to develop fluency in English. They focus on vocabulary and routine phrases that students will encounter in their day-to-day living in their community. Skill focus is on listening as a means of learning English outside of the classroom and on practicing key routine phrases that are used in accessing day-to-day resources. Reading and writing skills in these courses pertain to the completion of forms and to reinforcing key routine phrases. Students will be able to use their listing and oral skills to complete basic day-to-day tasks in their community.

LEP 6006 Beginning ESL Skills
These courses build skills needed to develop oral fluency and literacy in English. They focus on vocabulary and routine phrases that students will encounter in their immediate and surrounding environment. Specific skill focus is on building reading/writing and listening strategies needed for general comprehension and on developing more fluent speaking skills. Students will be able to use English skills to access and respond to community information and to become informed about job possibilities.

LEP 6007 Intermediate ESL Skills
These courses develop skills students need to participate in community activities and workplace issues. The emphasis is on developing critical thinking skills through reading and writing and to develop social communication skills that are accurate and appropriate in varied situations. Specifically, students will become familiar with and be able to respond to different text types. Students will be able to communicate effectively in one-on-one situations and in small group settings.

LEP 6008 High-Intermediate ESL Skills
These courses strengthen skills students need to function successfully in social and professional contexts. The emphasis is on increasing literacy skills through exposure to and mastery of multiple text-types. In addition, students will increase their communication skills be participating in a variety of problem-

solving/content-based language experiences. Students will refind the ability to monitor and self-correct their oral and written communication so that they can become more self-directed in their learning. Students will be able to make informed choices about community involvement and will be prepared for professional training.
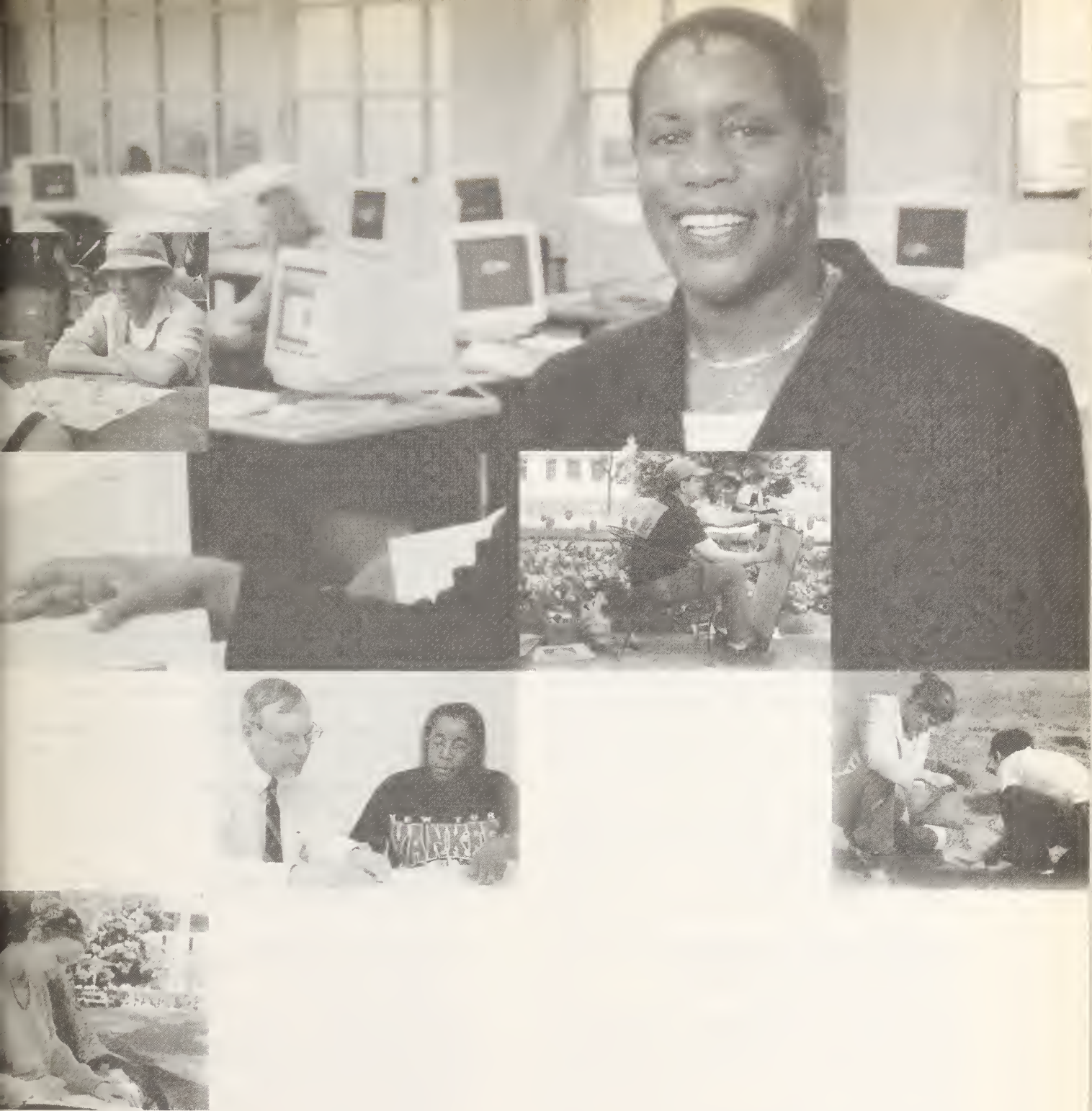
College-Level Programs

College-Level Programs

Associate in Applied Science (A.A.S.) Degrees, Diplomas, & Certificates

Introduction

The programs in the following section are primarily designed for students who intend to enter the workforce upon graduation. Certain programs are available at all campuses. Others are available only at certain campuses. However, the general education requirements are offered at all CPCC campuses.

Some two-year degree programs also have one-year diplomas, as well as certificates that require less than one year of full-time study. These appear in the alphabetical listing of programs contained in this Catalog section.

Requirements

Associate in Applied Science Degrees

These degrees are awarded after completion of a minimum of 64 semester credit hours or the number of credit hours specified by each area of study, including the required general education courses for that area.

A minimum of 21 credit hours must be earned at CPCC, 12 of which must be the final credit hours prior to graduation.

Official copies of high school and all other college/university transcripts must be in the student's folder in the Student Records office.

Associate in Applied Science Degrees are awarded in the following areas:

Accounting
Advertising and Graphic Design
Air Conditioning, Heating, and Refrigeration Technology
Architectural Technology
Associate Degree Nursing
Automotive Systems Technology
Business Administration (Central and South
     Campus program)
  International Business Concentration
  Marketing and Retailing Concentration
  Operation Management Concentration
Civil Engineering Technology
Computer Engineering Technology
Criminal Justice Technology (North Campus program)
Culinary Technology
Dental Hygiene
Early Childhood Associate
Electrical Engineering Technology
Electrical/Electronics Technology
Electronics Engineering Technology
Fire Protection Technology(Central and North
     Campus program)
Graphic Arts and Imagining Technology
  Flexography Concentration
Health Information Technology
Horticulture Technology
Hotel and Restaurant Management
Human Services Technology
  Developmental Disabilities Concentration
  Gerontology Concentration
  Substance Abuse Concentration

Industrial Maintenance Technology
    (Pending State Approval)
Information Systems (Central and South
     Campus program)
  Programming Concentration
  Network Administration and Support Concentration
Interior Design
Interpreter Education
Machining Technology
Manufacturing Engineering Technology
Mechanical Engineering Technology
Medical Assisting
Medical Laboratory Technology
Office Systems Technology (Central and South
     Campus program)
  Legal Concentration
  Medical Concentration
Paralegal Technology
Physical Fitness Technology
Physical Therapist Assistant
Respiratory Care
Surveying Technology
Travel and Tourism Technology
Welding Technology

Diplomas

Diplomas are awarded after completion of a minimum of 36 semester credit hours of required courses in the student's program of career study.

For program completion, the final 9 credit hours must be earned at CPCC.

Official copies of high school and all other college/university transcripts must be in the student's folder in the Student Records Office.

Diplomas are awarded in the following areas:

Air Conditioning, Heating, and Refrigeration Technology
Auto Body Repair
Automotive Systems Technology
Dental Assisting
Electrical/Electronics Technology
Heavy Equipment and Transport Technology
Horticulture Technology
Hotel Management Diploma
Information Systems/Computer Operations
Machining Technology
Mechanical Drafting Technology
Medical Assisting
Office Systems Technology/General Clerical Skills
Office Systems Technology/Word Processing Operator
Paralegal Technology
Restaurant Management Diploma
Travel and Tourism
Welding Technology

Certificates

Certificates are awarded after completion of a minimum of 12 semester credit hours of required courses in the student's program of study.

For program completion, the final 6 credits hours must be earned at CPCC.

Certificates are awarded in the following areas:

Basic Law Enforcement Training (North Campus program)
Cytotechnology

Specialized Certificates

Special short-term certificates are offered in several areas. Check with the related division office for information about these offerings.

AAS General Education Goals

Through its general education program, Central Piedmont seeks to provide a high quality of education for its students and to ensure that graduates have the necessary knowledge, skills, and abilities to function effectively in their personal and professional lives.

Central Piedmont Community College defines general education as acquiring and integrating the general knowledge, intellectual skills, attitudes, and experiences needed by an individual to

1. achieve a level of competency appropriate for a two-year college graduate,
2. prepare for advanced work and life-long learning, and
3. function more fully as a person and as a member of society.

The following goals identify the essence of a general education. Although some of these competencies may be achieved primarily through successful completion of particular courses, students should have the opportunity to develop and use many of these skills throughout their programs.

I. COMMUNICATIONS

Students should be able to communicate orally and in writing clearly and coherently, read with understanding, and listen perceptively, all at a level appropriate to their degrees or their occupational goals. They should understand how to locate, evaluate, and present information effectively to an appropriate audience. These goals incorporate the ability to think critically or analytically so that students can evaluate and communicate ideas.

II. MATHEMATICAL SKILLS

Students should be able to apply mathematical concepts and skills to interpret, understand, and communicate quantitative data in their personal, professional, and academic endeavors.

III. TECHNOLOGY

Students should acquire the skills to use computers in their personal and professional lives.

IV. SCIENCE

Students should understand the basic principles of science which govern the physical and natural world, and they should be sensitive to the impact of technology on the individual, on society, and on the natural environment.

V. PROBLEM SOLVING AND CRITICAL THINKING

Students should develop critical thinking skills that will allow them to analyze a variety of problems, select or create possible solutions, assess the impact of the solutions, and make informed judgments.

VI. HUMANITIES AND FINE ARTS

Students should develop an awareness of the humanities and fine arts to broaden their understanding of their own culture and the cultures of other places and times. They should also have the opportunity to recognize and develop their own creative skills.

VII. INTERNATIONAL AWARENESS

Students should recognize the interdependence of all the world's peoples and demonstrate an awareness and understanding of the similarities and differences among the world's societies and cultures.

VIII. BEHAVIORAL AND SOCIAL SCIENCE (Self and Society)

Students should demonstrate an increased awareness of their own values, beliefs, and behaviors as well as the values, beliefs and behaviors of others. Through knowledge and experience, students should develop their abilities to work as members of groups and work with people who are different from themselves. Students should also have an increased understanding of American culture and society so that they are able to participate more effectively in the political and economic life of the United States. Students should improve their abilities to make decisions about education and employment based on their skills and interests and on the needs of the community.

Accounting (A25100)

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the language of business, accountants assemble, analyze, process, and communicate essential information about financial operations.

In addition to course work in accounting principles, theories, and practice, students will study business law, finance, management and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

Degree Awarded

The Associate in Applied Science Degree - Accounting is awarded by the College upon completion of this program.

Note

Students interested in transferring to a senior institution should take COM 231 Public Speaking in lieu of COM 110 Introduction to Communication and should take MAT 161 College Algebra in lieu of MAT 140 Survey of Mathematics.

For More Information

The Accounting Program is in the Business and Accounting Division. For information, call the Program Chair 704- 330-6696, weekdays, 7:30 a.m.- 4:30 p.m. The Program Counselor can be reached at 704- 330-6229. Students may also receive information through the office of the Dean, South Campus.

Admissions

- High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics and reading.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ACC 110 Ten Key Calculator	0	2			1
ACC 120 Principles of Accounting I	3	2			4
ACC 121 Principles of Accounting II	3	2			4
ACC 125 Mathematics of Finance	3				3
ACC 129 Individual Income Taxes	2	2			3
ACC 130 Business Income Taxes	2	2			3
ACC 149 Introduction to Accounting Spreadsheets	1	2			2
ACC 150 Computerized General Ledger	1	2			2
ACC 220 Intermediate Accounting I	3	2			4
ACC 221 Intermediate Accounting II	3	2			4
ACC 225 Cost Accounting	3				3
ACC 250 Advanced Accounting	3				3
ACC 269 Auditing	3				3
BUS 115 Business Law I	3				3
BUS 121 Business Math	2	2			3
BUS 225 Business Finance	2	2			3
CIS 111 Basic PC Literacy	1	2			2
ECO 251 Principles of Microeconomics	3				3

Technical Electives
Students must choose one course from the following:

	Class	Lab	Hours Clinical	Work Exper.	Credits
ACC 140 Payroll Accounting	1	2			2
ACC 151 Accounting Spreadsheet Applications	1	2			2
ACC 240 Government and Not-for-Profit Accounting	3				3
BUS 125 Personal Finance	3				3
BUS 210 Investment Analysis	3				3
COE 112 Co-op Work Experience I	0			20	2
COE 122 Co-op Work Experience II	0			20	2

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
COM 110 Introduction to Communication OR	3				3
COM 231 Public Speaking					
ECO 252 Principles of Macroeconomics	3				3
ENG 111 Expository Writing	3				3
ENG 114 Professional Research and Reporting	3				3
MAT 140 Survey of Mathematics OR	3				3
MAT 161 College Algebra					

Humanities and Fine Arts Goal
Students must choose a minimum of three credit hours from the list of approved humanities coursed listed at the end of this section of the catalog. 3 3

Total Credit Hours 73

Advertising and Graphic Design (A30100)

The Advertising and Graphic Design curriculum is designed to provide students with knowledge and skills necessary for employment in the graphic design profession, which emphasizes design, advertising, illustration, and digital and multimedia preparation of printed and electronic promotional materials.

Students will be trained in the development of concept and design for promotional materials such as newspaper and magazine advertisements, posters, folders, letterheads, corporate symbols, brochures, booklets, preparation of art for printing, lettering and typography, photography, and electronic media.

Graduates should qualify for employment opportunities with graphic design studios, advertising agencies, printing companies, department stores, a wide variety of manufacturing industries, newspapers, and businesses with in-house graphics operations.

Degree Awarded

The Associate in Applied Science Degree - Advertising and Graphic Design is awarded by the College upon completion of this program.

For More Information

The Advertising and Graphic Design program is in the Visual and Performing Arts Division. For more information call a Program Counselor at 704- 330-5922 or 6862 or the Program chair at 704- 330-5009, weekdays from 8 a.m. - 5 p.m.

Admissions

- High School Diploma or equivalent is required.
- Placement tests determine enrollment in English (ENG) and mathematics (MAT) courses.
- Students entering this program should take the courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ART 117 Non Western Art History	3	0			3
ART 121 Design I	1	4			3
ART 131 Drawing I	0	6			3
ART 132 Drawing II	0	6			3
GRD 110 Typography I	2	2			3
GRD 111 Typography II	2	2			3
GRD 113 History of Graphic Design	3	0			3
GRD 131 Illustration I	1	3			2
GRD 142 Graphic Design II	2	4			4
GRD 151 Computer Design Basics	1	4			3
GRD 152 Computer Design Tech I	1	4			3
GRD 160 Photo Fundamentals I	1	4			3
GRD 241 Graphic Design III	2	4			4
GRD 242 Graphic Design IV	2	4			4
GRD 263 Illustrative Imaging	1	4			3
GRD 265 Digital Print Production	1	4			3
GRD 280 Portfolio Design	2	4			4
GRD 282 Advertising Copywriting	1	2			2

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ART 115 Art History Survey II	3	0			3
COM 231 Public Speaking	3	0			3
ENG 111 Expository Writing	3	0			3
ENG 114 Professional Research and Reporting	3	0			3
MAT 115 Mathematical Models	2	2			3
PSY 150 General Psychology	3	0			3

Work Experience

	Class	Lab	Hours Clinical	Work Exper.	Credits
COE 221 Co-op Work Experience V	0			10	1
Total Credit Hours					**75**

Air Conditioning, Heating and Refrigeration Technology (A 35100)

The Air Conditioning, Heating, and Refrigeration Technology curriculum, provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The program covers air conditioning, furnaces, heat pumps, tools and instruments, residential building codes, residential system sizing, and advanced comfort systems.

Graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems and demonstrate an understanding of system selection and balance and advanced systems.

Degree Awarded

An AAS Degree in Air Conditioning, Heating and Refrigeration Technology is awarded by the College upon completion of this program.

For More Information

The Air Conditioning, Heating, and Refrigeration Technology program is in the Technical Careers Division. For more information, call the Program Chair at 704- 330-6985 or 6890, or the Division office at 704- 330-6930, weekdays 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6229 or 6059.

Note

Basic tools are required for some courses. A list may be obtained from the instructor.

Admissions

- Completion of a High School Diploma is required for entering AAS program.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
AHR 110 Introduction to Refrigeration	2	6			5
AHR 111 HVACR Electricity	2	2			3
AHR 112 Heating Technology	2	4			4
BPR 130 Blue Print Reading/Const.	1	2			2
WLD 112 Basic Welding Processes	1	3			2
AHR 113 Comfort Cooling	2	4			4
AHR 114 Heat Pump Technology	2	4			4
AHR 115 Refrigeration Systems	1	3			2
AHR 130 HVAC Controls	2	2			3
AHR 180 HVACR Customer Relations	1	0			1
AHR 125 HVAC Electronics	1	3			2
AHR 140 All Weather Systems	1	3			2
AHR 211 Residential System Design	2	2			3
AHR 212 Advanced Comfort Systems	2	6			4
AHR 220 Commercial Building Codes	2	0			2
AHR 225 Commercial System Design	2	3			3
AHR 215 Commercial HVAC Controls	1	3			2
AHR 240 Hydronic Heating	1	3			2

Students must choose one course from the following :

	Class	Lab	Credits
AHR 235 Refrigeration Design	2	2	3
AHR 293 Selected Topics in HVACR	2	2	3

General Education Core Requirements

	Class	Lab	Credits
ENG 111 Expository Writing	3	0	3
ENG 114 Professional Research	3	0	3
MAT 115 Mathematical Models	2	2	3
CIS 111 Basic PC Literacy	1	2	2

Student must select one of the following:

	Class	Lab	Credits
COM 110 Introduction to Communications	3	0	3
OR			
COM 231 Public Speaking	3	0	3

Student may choose one course from the following list of courses:

	Class	Lab	Credits
ART 111 Art Appreciation	3	0	3
DAN 110 Dance Appreciation	3	0	3
DRA 111 Theatre Appreciation	3	0	3
HUM 115 Critical Thinking	3	0	3
HUM 160 Introduction to Film	3	0	3
MUS 110 Music Appreciation	3	0	3
HUM 130 Myth in Human Culture	3	0	3
COM 140 Intercultural Communications	3	0	3

Student may choose one course from the following list of courses :

	Class	Lab	Credits
ECO 151 Survey of Economics	3	0	3
HIS 231 Recent American History	3	0	3
HIS 236 North Carolina History	3	0	3
POL 220 International Relations	3	0	3
PSY 150 General Psychology	3	0	3
SOC 210 Introduction to Sociology	3	0	3
SOC 220 Social Problems	3	0	3
Total Credit Hours			**73**

Air Conditioning, Heating, and Refrigeration Technology Diploma (D35100)

The Air Conditioning, Heating, and Refrigeration Technology curriculum, provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments. In addition, the A.A.S. degree covers residential building codes, residential system sizing, and advanced comfort systems.

Diploma graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems. AAS degree graduates should be able to demonstrate an understanding of system selection and balance, and advanced systems.

Diploma Awarded

A Diploma in Air Conditioning, Heating and Refrigeration Technology is awarded by the college upon completion of this program.

Graduates may apply for advanced standing in the Air Conditioning, Heating, and Refrigeration Technology Degree Program.

For More Information

The Air Conditioning, Heating, and Refrigeration Technology program is in the Technical Careers Division. For more information, call the Program Chair - 704- 330-4446, or the Division office - 704- 330-4445, weekdays 8 a.m. - 5 p.m.

College-Level Programs

Program Counselors can be reached by calling 704- 330-6229 or 6059.

Note

Basic tools are required for some courses. A list may be obtained from the instructor.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
AHR 110 Introduction to Refrigeration	2	6			5
AHR 111 HVACR Electricity	2	2			3
AHR 112 Heating Technology	2	4			4
BPR 130 Blue Print Reading/Const.	1	2			2
WLD 112 Basic Welding Processes	1	3			2
AHR 113 Comfort Cooling	2	4			4
AHR 114 Heat Pump Technology	2	4			4
AHR 115 Refrigeration Systems	1	3			2
AHR 130 HVAC Controls	2	2			3
AHR 180 HVACR Customer Relations	1	0			1
AHR 220 Commerical Building Codes	1	2			2
AHR 125 HVAC Electronics	1	3			2
AHR 140 All Weather Systems	1	3			2
AHR 211 Residential System Design	2	2			3
CIS 111 Basic PC Literacy	1	2			2

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
*MAT 101 Applied Math I	2	2			3
OR					
MAT 115 Mathematical Models	2	2			3
*ENG 101 Applied Communications I	3	0			3
Total Credit Hours					**47**

*Any student who has completed a diploma level general education course must take the appropriate associate degree general education course if he or she chooses to pursue the higher credential.

Air Conditioning, Heating, and Refrigeration Technology Certificates (C35100)

Specialization Certificates

The certificates listed below can be earned in the Air Conditioning, Heating, and Refrigeration (A35100) program.

For More Information

For more information, call the Program Chair at 704- 330-4446 or the Technical Careers Division at 704- 330-4445, weekdays 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6229 or 6059.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Air Conditioning, Heating, and Refrigeration Technology With A Specialization in Heating Service (C35100-C1)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
AHR 110 Introduction to Refrigeration	2	6			5
AHR 111 HVACR Electricity	2	2			3
AHR 112 Heating Technology	2	4			4
AHR 220 Commercial Building Code	1	2			2
BPR 130 HVAC Controls	1	2			2
Student must choose one (1) course from the following:					
AHR 180 HVACR Customer Relations	1	0			1
COE 111 Co-op Work Experience I	0	0		10	1
Total Credit Hours					**17**

Air Conditioning, Heating, and Refrigeration Technology With A Specialization in Air Conditioning Service (C35100-C2)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
AHR 110 Introduction to Refrigeration	2	6			5
AHR 111 HVACR Electricity	2	2			3
AHR 113 Comfort Cooling	2	4			4
BPR 130 Blue Print Reading/Const.	1	2			2
AHR 220 Commercial Building Code	1	2			2
Student must choose one (1) of the following:					
AHR 180 HVACR Customer Relations	1	0			1
COE 111 Co-op Work Experience I	0	0		10	1
Total Credit Hours					**17**

Air Conditioning, Heating, and Refrigeration Technology With A Specialization in All Weather Systems Service (C35100-C3)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
BPR 130 Blue Print Reading/Const.	1	2			2
AHR 114 Heat Pump Technology	2	4			4
AHR 125 HVAC Electronics	1	3			2
AHR 130 HVAC Controls	2	2			3
AHR 140 All Weather Systems	1	3			2
AHR 180 HVACR Customer Relations	1	0			1
AHR 220 Commercial Building Code	1	2			2
Total Credit Hours					**16**

Architectural Technology (A40100)

The Architectural Technology curriculum prepares individuals with knowledge and skills that can lead to employment in the field of architecture or one of the associated professions.

Students receive instruction in construction document preparation, materials and methods, environmental and structural systems, building codes and specifications, and computer applications as well as complete a design project. Optional courses may be provided to suit specific career needs.

Upon completion, graduates have career opportunities within the architectural, engineering, and construction professions as well as positions in industry and government.

Degree Awarded

The Associate of Applied Science Degree - Architectural Technology is awarded by the College upon completion of this program.

General Information

The curriculum at Central Piedmont Community College includes emphasis on computer-aided drafting (CAD) and related computer courses to prepare graduates for employment in the expanding CAD area within the field of Architectural Technology.

For More Information

For more information, call the admissions counselor 704-330-6881 or the Program chair at 704- 330-6548 weekdays, 8:00 a.m. - 5:00 p.m.

Admissions

- A High School Diploma or equivalent is required.
- CPCC Placement tests are required in English and mathematics. Advancement Studies for math and English classes are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Students should see a faculty advisor before registration.
- Students entering this program should take the courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ARC 111 Intro to Arch Technology	1	6	0	0	3
ARC 112 Construction Matls & Methods	3	2	0	0	4
ARC 113 Residential Arch Tech	1	6	0	0	3
ARC 114 Architectural CAD (AutoCAD or MicroStation)	1	3	0	0	2
ARC 131 Building Codes	2	2	0	0	3
ARC 132 Specifications and Contracts	2	0	0	0	2
ARC 133 Constr Doc Analysis	1	3	0	0	2
ARC 212 Commercial Constr Tech	1	6	0	0	3
ARC 213 Design Project	2	6	0	0	4
ARC 221 Architectural 3-D CAD (AutoCAD or MicroStation)	1	4	0	0	3
ARC 220 Adv Architect CAD (AutoCAD or MicroStation)	1	3	0	0	2
ARC 230 Environmental Systems	3	3	0	0	4
ARC 250 Survey of Architecture	3	0	0	0	3
CIV 110 Statics/Strength of Materials	2	6	0	0	4
CIV 220 Basic Structural Concepts	1	3	0	0	2
PHY 110 Conceptual Physics	3	0	0	0	3
PHY 110A Conceptual Physics Lab	0	2	0	0	1
Technical Electives					
(To be selected from list below)					3
ARC 160 Residential Design	1	6	0	0	3
ARC 231 Arch Presentations	2	4	0	0	4
ARC 240 Site Planning	2	2	0	0	3
ARC 262 Arch Animation & Video (AutoCAD or MicroStation)	1	6	0	0	3
COE 112 Co-op Work Experience I	0	0	0	20	2
ARC 191 Selected Topics in Architectural Technology	0-1	0-3	0	0	1
ARC 192 Selected Topics in Architectural Technology	0-2	0-6	0	0	2
ARC 196 Selected Seminar in Architectural Technology	0-1	0-3	0	0	1
ARC 197 Seminar in Architectural Technology	0-2	0-6	0	0	2
MAT 223 Applied Calculus	2	2	0	0	3

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research and Reporting	3	0	0	0	3
COM 110 Intro to Communication	3	0	0	0	3
MAT 121 Algebra/TRIG. I	2	2	0	0	3
MAT 122 Algebra/TRIG. II	2	2	0	0	3
Students must choose three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.	3	0	0	0	3
Students must choose three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0	0	0	3
					21
Total Credit Hours					**72**

Architectural Technology Certificate (C40100)

Specialization Certificate

Architectural Technology Certificate With A Specialization in Computer Aided Design/Drafting (C40100-C1)

This certificate prepares individuals for CAD drafting positions within the field of Architecture. Course work includes work in basic architectural drafting techniques, reading construction documents, 2D and 3D CAD drawing, rendering, modeling, animation and video of building interiors and exteriors. This certificate will be earned in either AutoCAD or MicroStation.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ARC 111 Intro to Arch Technology	1	6	0	0	3
ARC 114 Architectural CAD (AutoCAD or MicroStation)	1	3	0	0	2
ARC 220 Adv Architect CAD (AutoCAD or MicroStation)	1	3	0	0	2
ARC 221 Architectural 3-D CAD (AutoCAD or MicroStations)	1	4	0	0	3
ARC 133 Constr Doc Analysis	1	3	0	0	2
ARC 262 Arch Animation & Video (AutoCAD MicroStations)	1	6	0	0	3
Total Credit Hours					**15**

Autobody Repair Diploma (D60100)

The Autobody Repair curriculum provides training in the use of equipment and materials of the autobody repair trade. The student studies the construction of the automobile body and

techniques of autobody repairing, rebuilding, and refinishing.

The course work includes autobody fundamentals, industry overview, and safety. Students will perform hands-on repairs in the areas of non-structural and structural repairs, mig welding, plastics and adhesives, refinishing, and other related areas.

Graduates of the curriculum should qualify for entry-level employment opportunities in the automotive body and refinishing industry. Graduates may find employment with franchised independent garages, or they may become self-employed.

Diploma Awarded

A Diploma in Autobody Repair is awarded by the College upon completion of this program.

Note

Students must furnish required hand tools, textbooks, respirator, and protective clothing. A list of these items can be obtained from an instructor or the Program Chair. Call 704-330-6938 for a list.

For More Information

The Autobody Repair program is in the Transport Systems Technologies Division. For more information, call the Program Chair - 704-330-6938, or the Division office at 704-330-6220 weekdays 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704-330-6059.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

Title	Class	Lab	Hours Clinical	Work Exper.	Credits
AUB 111 Painting and Refinishing I	2	6			4
AUB 112 Painting and Refinishing II	2	6			4
AUB 114 Special Finishes	1	2			2
AUB 121 Non-Structural Damage I	1	4			3
AUB 122 Non-Structural Damage II	2	6			4
AUB 131 Structural Damage I	2	4			4
AUB 132 Structural Damage II	2	6			4
AUB 134 Autobody MIG Welding	1	4			3
AUB 136 Plastics and Adhesives	1	4			3
AUB 141 Mechanical and Electrical Components I	2	2			3
AUB 162 Autobody Estimating	1	2			2

Major Electives:

Students may select one course from the following:

COE 112 Co-op Work Experience I	0	0		20	2
COE 113 Co-op Work Experience I	0	0		30	3

General Education Core Requirements

ENG 101 Applied Communications	3	0			3
MAT 101 Applied Math	2	2			3
OR					
MAT 115 Mathematical Models	2	2			3
Total Credit Hours					**42-44**

Autobody Repair Certificates (D60100)

Specialization Certificates

The certificates listed below can be earned in the Autobody Repair (D60100) program.

For More Information

For more information, call the Program Chair at 704-330-6938 or the Transport Systems Technologies Division at 704-330-6220, weekdays 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704-330-6059.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Autobody Repair Certificate With a Specialization in Refinishing (C60100-C1)

Major and Related Course Requirements

Title	Class	Lab	Hours Clinical	Work Exper.	Credits
AUB 111 Painting and Refinishing I	2	6			4
AUB 112 Painting and Refinishing II	2	6			4
AUB 114 Special Finishes	1	2			2
AUB 136 Plastics and Adhesives	1	4			3
Total Credit Hours					**13**

Autobody Repair Certificate With a Specialization in Autobody Repair (D60100-C2)

Major and Related Course Requirements

Title	Class	Lab	Hours Clinical	Work Exper.	Credits
AUB 121 Non-Structural Damage I	1	4			3
AUB 122 Non-Structural Damage II	2	6			4
AUB 131 Structural Damage I	2	4			4
AUB 132 Structural Damage II	2	6			4
AUB 134 Autobody MIG Welding	1	4			3
Total Credit Hours					**18**

Automotive Systems Technology (A60160)

The Automotive Systems Technology curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains.

Upon completion of this curriculum, students should be prepared to take the ASE exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

Degree Awarded

The Associate in Applied Science Degree -Automotive Systems Technology is awarded by the College upon completion of this program.

Program Accreditation

This program is Master Certified by the National Institute for Automotive Service Excellence (A.S.E.).
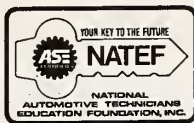
Program Manufacturer Partners

The Daimler-Chrysler Apprenticeship Program (CAP), General Motors' Automotive Service Excellence Program (ASEP), and Toyota's Technical Education Network (T-TEN) are options for this associate degree program. Call the Transport Systems Division Cooperative Education Coordinator at 704-330-6221 or division office 704-330-6220 for manufacturer program information.

Note

Students must furnish required hand tools and protective clothing, as well as textbooks. A list of these items can be obtained from an instructor or Program Chair by calling 704-330-6023.

For More Information

The Automotive Systems Technology program is in the Transport Systems Technologies Division. For more information, call the Program Chair at 704- 330-6023 or the Division office at 704- 330-6220, weekdays from 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6059.

Admissions

- A High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
AUT 141 Suspension and Steering Systems	2	4			4
AUT 151 Brake Systems	2	2			3
AUT 164 Automotive Electronics	2	2			3
AUT 183 Engine Performance - Fuels	2	3			3
AUT 281 Advanced Engine Performance	2	2			3
AUT 110 Introduction to Auto Technology	2	2			3
AUT 115 Engine Fundamentals	2	3			3
AUT 161 Electrical Systems	2	6			4
AUT 116 Engine Repair	1	3			2
AUT 171 Heating and Air Conditioning	2	3			3
AUT 231 Manual Drive/Trans/Axles	2	3			3
AUT 221 Automatic Transmissions	2	6			4
AUT 162 Chassis Electrical and Electronics	2	2			3
Students must complete one from the following:					
CIS 111 Basic PC Literary	1	2			2

	Class	Lab	Hours Clinical	Work Exper.	Credits
AUT 186 Automotive Computer Applications	1	2			2
Students must select 6–8 (SHC) from the following courses:					
AUT 152 Brake Systems Lab	0	2			1
AUT 184 Engine Perfor-Fuels Lab	0	3			1
AUT 113 Automotive Servicing	2	6			4
COE 112 Co-op Work Experience 1	0	0		20	2
COE 113 Co-op Work Experience 1				30	3
COE 122 Co-op Work Experience II				20	2
COE 132 Co-op Work Experience III				20	2
COE 212 Co-op Work Experience IV				20	2

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3				3
ENG 114 Professional Research and Reporting	3				3
MAT 115 Mathematical Models	2	2			3
Students must complete one from the following:					
COM 110 Introduction to Communications	3				3
COM 231 Public Speaking	3				3
COM 233 Persuasive Speaking	3				3
Students must complete one from the following					
ART 111 Art Appreciation	3				3
MUS 110 Music Appreciation	3				3
COM 140 Intercultural Communications	3				3
Students must complete one from the following					
HIS 111 World Civilization I	3				3
PSY 150 General Psychology	3				3
SOC 210 Introduction to Sociology	3				3
SOC 213 Sociology of the Family	3				3
Total Credit Hours					**65-67**

Automotive Systems Technology Diploma (D60160)

The Automotive Systems Technology curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains.

Upon completion of this curriculum, students should be prepared to take the ASE exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

Diploma Awarded

A diploma in Automotive Systems Technology is awarded by the College upon completion of this program.

Program Accreditation

This program is Master Certified by the National Institute for Automotive Service Excellence (A.S.E.).

Note

Students must furnish required hand tools and protective clothing, as well as textbooks. A list of these items can be obtained from an instructor or Program Chair by calling 704-330-6023.

For More Information

The Automotive Systems Technology program is in the Transport Systems Technologies Division. For more information, call the Program Chair at 704- 330-6023 or the Division office at 704- 330-6220, weekdays from 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6059.

Admissions

- Completion of a high school diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

Choose 42 hours from Major and Related Course Requirements listed below:

Title	Class	Lab	Hours Clinical	Work Exper.	Credits
AUT 141 Suspension and Steering Systems	2	4			4
AUT 151 Brake Systems	2	2			3
AUT 152 Brake Systems - Lab	0	2			1
AUT 164 Automotive Electronics	2	2			3
AUT 183 Engine Performance - Fuels	2	3			3
AUT 184 Engine Performance - Fuels Lab	0	3			1
AUT 281 Advanced Engine Performance	2	2			3
AUT 110 Introduction to Auto Technology	2	2			3
AUT 115 Engine Fundamentals	2	3			3
AUT 161 Electrical Systems	2	6			4
AUT 116 Engine Repair	1	3			2
AUT 171 Heating and Air Conditioning	2	3			3
AUT 231 Manual Drive/Trans/Axles	2	3			3
AUT 221 Automatic Transmissions	2	6			4
AUT 162 Chassis Electrical and Electronics	2	2			3

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3				3
MAT 115 Mathematical Models	2	2			3
Total Credit Hours					**48**

Basic Law Enforcement Training (C55120)

Basic Law Enforcement Training (BLET) is designed to give students essential skills required for entry-level employment as law enforcement officers with state, county, or municipal governments, or with private enterprise.

This program utilizes State-commission-mandated topics and methods of instruction. General subjects include, but are not limited to, criminal, juvenile, civil, traffic, and alcoholic beverage laws; investigative, patrol, custody, and court procedures; emergency responses; and ethics and community relations.

Successful graduates receive a curriculum certificate and are qualified to take certification examinations mandated by the North Carolina Criminal Justice Education and Training Standards Commission and/or the North Carolina Sheriffs Education and Training Standards Commission.

For More Information

This program is in the Public Safety Division. For more information, call 704- 330-4108, weekdays from 8 a.m.-4:30 p.m. Program location is the North Campus.

Admissions

- A physical exam (including an F-2 form to be completed by a physician and an F-1 form to be completed by the student)
- 20 years of age (19-year-olds admitted if 20th birthday occurs during training)
- High School Graduate
- No criminal history to deny certification
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Business Administration (A25120)

The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes, and an understanding of business organizations in today's global economy.

Course work includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building, and decision making.

Through these skills, students will have a sound business education base for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and large to small business or industry.

Degree Awarded

The Associate in Applied Science - Business Administration is awarded by the College upon completion of this program.

For More Information

The Business Administration Program is in the Business and Accounting Division. Call 704- 330-6782 to talk to the Program Chair or 704- 330-6595/6646 to reach the division office. The program is available on Central Campus and South Campus.

Admissions

- A High School Diploma or equivalent is required.
- In order to be placed in English and mathematics courses, students must take computerized placement tests in reading, English and math.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ACC 120 Principles of Accounting	3	2			4
ACC 121 Principles of Accounting II	3	2			4
BUS 110 Introduction to Business	3				3
BUS 115 Business Law I	3				3

	Class	Lab	Hours Clinical	Work Exper.	Credits
BUS 116 Business Law II	3				3
BUS 135 Principles of Supervision	3				3
BUS 137 Principles of Management	3				3
BUS 153 Human Resource Management	3				3
BUS 228 Business Statistics	2	2			3
BUS 230 Small Business Management	3				3
BUS 255 Organizational Behavior in Business	3				3
CIS 111 Basic PC Literacy	1	2			2
ECO 251 Principles of Microeconomics	3				3
ISC 131 Quality Management	3				3
INT 110 International Business	3				3
MKT 120 Principles of Marketing	3				3

Technical Electives (Choose two courses from the following:)

	Class	Lab	Hours Clinical	Work Exper.	Credits
BUS 121 Business Mathematics	2	2			3
COE 113 Coop Work Experience I	0			30	3
MKT 224 International Marketing					
BUS 225 Business Finance					

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
COM 231 Public Speaking	3				3
ECO 252 Principles of Macroeconomics	3				3
ENG 111 Expository Writing	3				3
ENG 114 Professional Research and Reporting	3				3
MAT 115 Mathematical Models	2	2			3
OR					
MAT 161 College Algebra					
OR					
MAT 140 Survey of Mathematics					

Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end

	Class	Lab	Hours Clinical	Work Exper.	Credits
of this section of the catalog.	3				3
Total Credit Hours					**73**

Business Management Certificate

Specialization Certificate

Business Administration Certificate With a Specialization in Business Management (C25120-C1)

This certificate is designed to provide the student with a concentrated course of study in the field of business management. Upon completion of the six courses, a certificate will be awarded by the College. The courses for this certificate may be applied toward the Associate Degree in Business Administration.

For more information, call the Program Chair at 704- 330-6782. The certificate program is offered on Central and South Campuses.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
BUS 110 Introduction to Business	3	0			3
BUS 137 Principles of Management	3	0			3
BUS 228 Business Statistics	2	2			3
BUS 230 Small Business Management	3	0			3
BUS 255 Organizational Behavior	3	0			3
COM 231 Public Speaking	3	0			3
Total Credit Hours					**18**

Business Administration International Business Concentration (A2512D)

International Business is a concentration under the curriculum title of Business Administration. This curriculum prepares individuals for positions in international business through studies in business, social science, foreign language, and specialized courses in international marketing, law, economics, and trade practices.

Students will be expected to demonstrate language skills; a knowledge of geographic, political, and cultural differences; the ability to process import/export documentation; and a knowledge of international economics and business practices.

Employment opportunities are available in import/export departments, freight-forwarder companies, customs house brokerage firms, international banking, state and federal government organizations, world organizations, and other internationally active businesses.

Degree Awarded

The Associate in Applied Science Degree - Business Administration – International Business is awarded by the College upon completion of this program.

A Certificate in International Business is also available upon completion of 18 credit hours of specified required courses.

For More Information

The International Business Program is in the Business and Accounting Division. For more information, call the Program Chair at 704- 330-6980 or the division office at 704-330-6595/6646. The Program Counselor can be reached by calling 704- 330-6862.

Admissions

- A High School Diploma or equivalent is required.
- In order to be placed in English and mathematics courses, students must take computerized placement tests in reading, English and math.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ACC 120 Principles of Accounting 1	3	2			4
ACC 270 International Accounting	3				3
BUS 115 Business Law 1	3				3
BUS 137 Principles of Management	3				3
CIS 111 Basic PC Literacy	2				2
COM 140 Intercultural Communication	3				3
ECO 252 Principles of Macroeconomics	3				3
GEO 111 World Regional Geography	3				3
INT 110 International Business	3				3
INT 210 International Trade	3				3
INT 220 International Economics	3				3
INT 230 International Law	3				3
MKT 120 Principles of Marketing	3				3

	Class	Lab	Clinical	Work Exper.	Credits
MKT 224 International Marketing	3				3
Language	3				3
Lab	0	2			1

(Choose one language with lab: FRE 112, FRE 182; GER 112, GER 182; SPA 112, SPA 182)

Technical Electives

(Choose one course from the following)

	Class	Lab	Clinical	Work Exper.	Credits
ACC 121 Principles of Accounting II	3	2			4
BUS 110 Introduction to Business	3				3
BUS 116 Business Law II	3				3
COE 113 Co-op Work Experience I	0			20	3
INT 180 Travel Study Abroad	3				3
Language	3				3
Language Lab	0	2			1

(Choose one language with lab: FRE 211, FRE 281; GER 211, GER 281; SPA 211, SPA 281)

General Education Core Requirements

	Class	Lab	Clinical	Work Exper.	Credits
COM 231 Public Speaking	3				3
ECO 251 Principles of Microeconomics	3				3
ENG 111 Expository Writing	3				3
ENG 114 Professional Research and Reporting	3				3
MAT 115 Mathematical Models	2	2			3
OR					
MAT 140 Survey of Mathematics					
OR					
MAT 161 College Algebra					
Language	3				3
Language Lab	0	2			1

(Choose one language with lab: FRE 111, FRE 181; GER 111, GER 181; SPA 111, SPA 181)

Total Credit Hours					**68 / 69**

International Business Certificate

Specialization Certificate

Business Administration Certificate With A Specialization in International Business (A2512D-C1)

This certificate is designed to provide the student with a concentrated course of study in the field of International Business. Upon completion of the six courses, a certificate will be awarded by the College. This certificate may be applied toward the Associate Degree in Business Administration with a concentration in International Business.

For more information, call the Program Chair at 704- 330-6980.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
INT 110 International Business	3				3
INT 210 International Trade	3				3
MKT 120 Principles of Marketing	3				3
MKT 224 International Marketing	3				3
GEO 111 World Regional Geography	3				3
COM 140 Intercultural Communication	3				3
Total Credit Hours					**18**

Business Administration Marketing and Retailing Concentration (A2512F)

Marketing and Retailing is a concentration under the curriculum title of Business Administration. This curriculum is designed to provide students with fundamental skills in marketing and retailing.

Course work includes: marketing, retailing, merchandising, selling, advertising, computer technology, and management.

Graduates should qualify for marketing positions within manufacturing, retailing, and service organizations.

Degree Awarded

The Associate in Applied Science Degree - Business Administration – Marketing and Retailing is awarded by the College upon completion of this program.

A certificate in Marketing and Retailing is also available upon completion of 18 hours of required courses.

For More Information

The Marketing and Retailing Program is in the Business and Accounting Division. For more information, call the Program Chair at 704- 330-6980 or the division office at 704- 330-6595/6646. The Program Counselor can be reached by calling 704- 330-6862.

Admissions

- A High School Diploma or equivalent is required.
- Placement tests in English, mathematics and reading determine enrollment in English and mathematics courses.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ACC 120 Principles of Accounting I	3	2			4
BUS 110 Introduction to Business	3				3
BUS 115 Business Law I	3				3
BUS 137 Principles of Management	3				3
ECO 252 Principles of Macroeconomics	3				3
MKT 120 Principles of Marketing	3				3
MKT 121 Retailing	3				3
MKT 122 Visual Merchandising	3				3
MKT 123 Fundamentals of Selling	3				3
MKT 220 Advertising and Sales Promotion	3				3
MKT 221 Consumer Behavior	3				3
MKT 223 Customer Service	3				3
MKT 224 International Marketing	3				3
MKT 225 Marketing Research	3				3
MKT 227 Marketing Applications	3				3

Technical Electives

(Choose one course from the following:)

	Class	Lab	Clinical	Work Exper.	Credits
BUS 116 Business Law II	3				3
BUS 135 Principles of Supervision	3				3
BUS 153 Human Resource Management	3				3
COE 113 Co-op Work Experience I	3				3
INT 110 International Business	3				3
MKT 228 Service Marketing	3				3
MKT 230 Public Relations	3				3

General Education Core Requirements

	Class				
CIS 111 Basic PC Literacy	2				2
COM 231 Public Speaking	3				3
ECO 251 Principles of Microeconomics	3				3
ENG 111 Expository Writing	3				3
ENG 114 Professional Research and Reporting	3				3
BUS 228 Business Statistics OR					
MAT 155 Statistical Analysis	3				3
MAT 115 Mathematical Models OR					
MAT 140 Survey of Mathematics OR					
MAT 161 College Algebra	3				3

Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog. | 3 | | | | 3 |

Total Credit Hours | | | | | **72**

Marketing and Retailing Certificate

Specialization Certificate

Business Administration Certificate With A Specialization in Marketing and Retailing (C2512F-C1)

This certificate is designed to provide the student with a concentrated course of study in the field of Marketing and Retailing. Upon completion of the six courses, a certificate will be awarded by the college. This certificate may be applied toward the Associate Degree in Business Administration with a concentration in Marketing and Retailing.

For more information, call the Program Chair at 704-330-6980.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MKT 120 Principles of Marketing	3				3
MKT 121 Retailing	3				3
MKT 123 Fundamentals of Selling	3				3
MKT 220 Advertising and Sales Promotion	3				3
MKT 221 Consumer Behavior	3				3
MKT 227 Marketing Applications	3				3
Total Credit Hours					**18**

Customer Service Certificate

Specialization Certificate

Business Administration Certificate With A Specialization in Customer Service (A2512F-C2)

This certificate is designed to provide the student with a concentrated course of study in the field of Customer Service. Upon completion of six of these courses, a certificate will be awarded by the College. The certificate may be applied toward the Associate Degree in Business Administration.

For more information, call the Program Chair at 704-330-6980.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MKT 223 Customer Service	3	0			3
CIS 110 Introduction to Computers OR	2	2			3
CIS 111 Basic PC Literacy	1	2			2
COE 110 World of Work OR	1	0		0	1
BUS 255 Organizational Behavior	3	0			3
(Choose one course from the following)					
COM 110 Introduction to Communications	3	0			3
COM 111 Voice and Diction	3	0			3
COM 120 Interpersonal Communication	3	0			3
ENG 101 Applied Communications	3	0			3
(Choose two courses from the following)					
MKT 123 Fundamentals of Selling	3	0			3
MKT 221 Consumer Behavior	3	0			3
MKT 228 Service Marketing	3	0			3
BUS 121 Business Math	2	2			3
Total Credit Hours					**18**

Optional Electives

	Class	Lab	Hours Clinical	Work Exper.	Credits
COE 113 Co-op Work Experience I	0	0		30	3
HRD 6004 Job Seeking Skills					0

Business Administration Operations Management Concentration (A2512G)

Operations Management is a concentration under the curriculum title of Business Administration. This curriculum is designed to educate individuals in the technical and managerial aspects of operations for manufacturing and service industries.

Emphasized are analytical reasoning, problem solving, and continuous improvement concepts required in today's dynamic business and industry environments. Concepts include quality, productivity, organizational effectiveness, financial analysis, and the management of human, physical, and information resources.

Graduates should qualify for leadership positions or enhance their professional skills in supervision, team leadership, operations planning, quality assurance, manufacturing and service management, logistics/distribution, health and safety, human resources management, and inventory/materials management.

Degree Awarded

The Associate in Applied Science Degree - Business Administration — Operations Management is awarded by the College upon completion of this program.

For More Information

The Operations Management Program is in the Business and Accounting Division. For more information, call the Program Chair: 704-330-6782 or division office 704-330-6595/6646.

Admissions

- A High School diploma or equivalent is required.
- In order to be placed in English and math courses, students must take computerized placement tests in reading, English and math.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ACC 120 Principles of Accounting	3	2			4
ACC 121 Principles of Accounting II	3	2			4
BUS 110 Introduction to Business	3				3
BUS 115 Business Law I	3				3
BUS 137 Principles of Management	3				3
BUS 228 Business Statistics	2	2			3
BUS 231 Computerized Inventory	2	2			3
CIS 111 Basic PC Literacy	1	2			2
ECO 251 Principles of Microeconomics	3				3
INT 110 International Business	3				3
ISC 121 Environmental Health and Safety	3				3
ISC 131 Quality Management	3				3
ISC 210 Operations and Production Planning	3				3
MKT 120 Principles of Marketing	3				3
OMT 112 Materials Management	3				3
OMT 260 Issues in Operations Management	3				3

Technical Electives

(Choose two courses from the following:)	6				6
BUS 220 Purchasing	3				3
BUS 135 Principles of Supervision OR	3				3
MKT 223 Customer Service	3				3
COE 113 Co op Work Experience I	0			30	3

General Education Core Requirements

COM 231 Public Speaking	3				3
ECO 252 Principle of Macroeconomics	3				3
ENG 111 Expository Writing	3				3
ENG 114 Professional Research and Reporting	3				3
MAT 115 Mathematical Models OR	2	2			3
MAT 140 Survey of Mathematics OR	3				3
MAT 161 College Algebra					
Students must choose three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.	3				3
Total Credit Hours					**73**

Operations Management Certificate

Specialization Certificate

Business Administration Certificate With A Specialization in Operations Management (C2512G-C1)

This certificate is designed to provide the student with a concentrated course of study in the field of operations management. Upon completion of the six courses, a certificate will be awarded by the College. The courses for this certificate may be applied toward the Associate Degree in Business Administration concentrating in Operations Management.

For more information, call the Program Chair at 704- 330-6782.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
BUS 110 Introduction to Business	3	0			3
BUS 137 Principles of Management	3	0			3
BUS 228 Business Statistics	2	2			3
ISC 210 Operations and Production Planning	3	0			3
OMT 112 Materials Management	3	0			3
COM 231 Public Speaking	3	0			3
Total Credit Hours					**18**

Civil Engineering Technology (A40140)

The Civil Engineering Technology curriculum provides the application of relevant theory of engineering needed by technicians to carry out planning and supervisory tasks in the construction of transportation systems, residential and commercial buildings, bridges, dams, and water and wastewater treatment systems.

Coursework includes the communication and computational skills required to support the fields such as materials testing, structures, estimating, project management, hydraulics, environmental technology, and surveying. Additional coursework will cover the operation of computers and application software including computer-aided drafting.

Graduates should qualify for technician level jobs with both public and private engineering, construction, and surveying agencies.

Degree Awarded

The Associate in Applied Science Degree - Civil Engineering Technology - will be awarded by the College upon completion of this program.

For More Information

Civil Engineering Technology is in the Engineering Technologies Division. For more information, call the Program Counselor at 704- 330-6881 or the Program chair at 704- 330-6578, weekdays from 8:00 a.m. - 5:00 p.m.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English and Mathematics. Advancement Studies classes in mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first if at all possible.
- Students should see a faculty advisor before registration.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Note

Students who do not take program-related courses for a one-year period must reenter the program under the Catalog in effect at the time of reentry.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 111 Basic PC Literacy	1	2	0	0	2
CIV 111 Soils and Foundations	2	3	0	0	3
CIV 210 Engineering Materials	1	3	0	0	2
CIV 211 Hydraulics and Hydrology	2	3	0	0	3

College-Level Programs

CIV 110 Statics/Strength					
of Materials	2	6	0	0	4
CIV 125 Civil/Surveying CAD	1	6	0	0	3
CIV 221 Steel and Timber Design	2	3	0	0	3
CIV 222 Reinforced Concrete	2	3	0	0	3
CIV 230 Construction Estimating	2	3	0	0	3
CIV 240 Project Management	2	3	0	0	3
EGR 115 Intro to Technology	**2**	**6**	**0**	**0**	**4**
SRV110 Surveying I	**2**	**6**	**0**	**0**	**4**
SRV 111 Surveying II	2	6	0	0	4
Technical Electives (To be selected					7
from list below.)					48

Technical Electives

CIV 192 Selected Topics in Civil					
Engineering Technology	1	3	0	0	2
CIV 198 Seminar in Civil					
Engineering Technology	2	3	0	0	3
CIV 212 Environmental Planning	2	3	0	0	3
CIV 215 Highway Technology	1	3	0	0	2
CIV 250 Civil Tech Project	1	3	0	0	2
COE 112 Co-op Work Experience I	0	0	0	20	2
CSC 132 Basic Programming	2	3	0	0	3
MAT 223 Applied Calculus	2	2	0	0	3
PHY 132 Physics-Elec					
& Magnetism	3	2	0	0	4

General Education Core Requirements

ENG 111 Expository Writing	**3**	**0**	**0**	**0**	**3**
ENG 114 Professional Research					
and Reporting	3	0	0	0	3
COM 110 Intro to Communication	3	0	0	0	3
MAT 121 Albebra/Trigonometry I	**2**	**2**	**0**	**0**	**3**
MAT 122 Albebra/Trigonometry II	2	2	0	0	3
PHY 131 Physics-Mechanics	3	2	0	0	4
Students must choose a minimum of three (3) credit hours from the list					
of approved humanities courses listed at the end					
of this section of the catalog.	3	0	0	0	3
Students must choose a minimum (3) credit hours from the list					
of approved behavioral and social sciences					
courses listed at the end					
of this section of the catalog.	3	0	0	0	3
					25
Total Credit Hours					**73**

Computer Engineering Technology (A40160)

The Computer Engineering Technology curriculum provides the skills required to install, service, and maintain computers, peripherals, networks, and microprocessor and computer controlled equipment. It includes training in both hardware and software, emphasizing operating systems concepts to provide a unified view of computer systems.

Course work includes mathematics, physics, electronics, digital circuits and programming, with emphasis on the operation, use, and interfacing of memory and devices to the CPU. Additional topics may include communications, networks, operating systems, programming languages, Internet configuration and design, and industrial applications.

Graduates should qualify for employment opportunities in electronics technology, computer service, computer networks, server maintenance, programming, and other areas requiring a knowledge of electronic and computer systems. Graduates may also qualify for certification in electronics, computers, or networks.

Degree Awarded

The Associate in Applied Science Degree - Computer Engineering Technology is awarded by the College upon completion of this program.

Program Accreditation

The Computer Engineering Technology program at Central Piedmont Community College is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Note

The Computer Engineering Technology program prepares students with skills and knowledge in both hardware and software aspects of computers and related systems. It provides a comprehensive background in the practical application of both computer and electronic circuits from the component to the system level. Courses are designed to present technical content in an order that provides students with progressive levels of job-related skills and knowledge. From fundamental programming and electrical circuits, students advance to specialized courses in computer circuits, microprocessors, microcomputer system design, software development, computer maintenance, and installation and technical support of local area networks.

The Computer/Electrical/Electronics Engineering Technology laboratories are staffed during day and evening hours so that students may devote as much time as possible to laboratory assignments. These modern facilities include adequate equipment to support practical laboratory activity in all courses.

Completion of the program requires that students use college-level algebra, trigonometry, and physics in the application of scientific principles to technological problems.

Students who do not take program-related courses for two consecutive semesters must re-enter the program under the Catalog in effect at the time of re-entry.

Students in the Computer Engineering Technology (A40160) program, desiring to earn an additional degree in Electrical Engineering Technology (A40180) or Electronics Engineering Technology (A40200) must meet the course requirements of the additional degree, and in the process complete a minimum of 12 unduplicated required or elective semester hours credit.

For More Information

The Computer Engineering Technology program is in the Engineering Technologies Division. For more information, call the Program chair at 704- 330-6479, weekdays from 9 a.m.-5 p.m. The Program Counselor can be reached at 704- 330-6881.

Admission

- A High School Diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry, and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy, and science.
- CPCC placement tests are required in English and mathematics. Advancement Studies classes in mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CET 111 Computer Upgrade and Repair	2	3	0	0	3
ELC 131 DC/AC Circuit Analysis	4	3	0	0	5
ELN 131E Electronic Devices	3	3	0	0	4
ELN 133E Digital Electronics	3	3	0	0	4
ELN 232 Introduction to Microprocessors	3	3	0	0	4
PHY 131 Physics-Mechanics	3	2	0	0	4
PHY 132 Physics-Electricity and Magnetism	3	2	0	0	4
CSC 133 C Programming	2	3	0	0	3
ELC 133 Advanced Circuit Analysis	2	3	0	0	3
ELN 132 Linear IC Applications	3	3	0	0	4
ELN 150 CAD for Electronics	1	3	0	0	2
ELN 233 Microcomputer Systems	3	3	0	0	4
ELN 237 Local Area Networks	2	3	0	0	3

Technical Electives (5 credit hours to be selected from the following courses)   44

	Class	Lab	Hours Clinical	Work Exper.	Credits
ATR 211 Robot Programming	2	3	0	0	3
ELN 260 Programmable Logic Controllers	3	3	0	0	4
CET 193 Selected Topics in C.E.T.	2	3	0	0	3
CET 293 Selected Topics in C.E.T.	2	3	0	0	3
COE 112E Cooperative Work Experience I	0	0	0	20	2
COE 122E Cooperative Work Experience II	0	0	0	20	2
ELC 135 Electrical Machines	2	2	0	0	3
ELC 136 Electrical Machines II	3	3	0	0	4
ELC 213 Instrumentation	3	2	0	0	4
ELC 231 Electric Power Systems	3	2	0	0	4
ELC 234E Electrical Systems Design	2	3	0	0	3
ELN 154 Introduction to Data Communications	2	3	0	0	3
ELN 234 Communication Systems	3	3	0	0	4
ELN 235 Data Communication Systems	3	3	0	0	4
ELN 236 Fiber Optics and Lasers	3	2	0	0	4
ELN 238 Advanced LANs	2	3	0	0	3
ELN 247 Electronics Applications Project	1	3	0	0	2
ELN 275 Troubleshooting	1	2	0	0	2
MAT 271 Calculus I	3	2	0	0	4
CIS 110 Introduction to Computers	2	2	0	0	3

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research & Reporting	3	0	0	0	3
COM 110 Introduction to Communications	3	0	0	0	3
MAT 121 Algebra/Trigonometry I	2	2	0	0	3
MAT 122 Algebra/Trigonometry II	2	2	0	0	3
MAT 223 Applied Calculus	2	2	0	0	3

Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog: 3   0   0   0   3

Students must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.   3   0   0   0   3

					19
Total Credit Hours					**76**

College-Level Programs

Criminal Justice Technology (A55180)

The Criminal Justice Technology curriculum is designed to provide knowledge of criminal justice systems and operations. Study will focus on local, state, and federal law enforcement, judicial processes, corrections, and security services. The criminal justice system's role within society will be explored.

Emphasis is on criminal justice systems, criminology, juvenile justice, criminal and constitutional law, investigative principles, ethics, and community relations. Additional study may include issues and concepts of government, counseling, communications, computers, and technology.

Employment opportunities exist in a variety of local, state, and federal law enforcement, corrections, and security fields. Examples include police officer, deputy sheriff, county detention officer, state trooper, intensive probation/parole surveillance officer, correctional officer, and loss prevention specialist.

Degree Awarded

The Associate in Applied Science Degree - Criminal Justice.

For More Information

The Criminal Justice program is in the Public Safety Division located at North Campus, Huntersville. For more information, call 704- 330-6026 or 704- 330-6544 weekdays from 8 a.m. -5 p.m. Program Counselors can be reached by calling 704-330-6229 or 6059 on the Main Campus, or by calling 704- 330-4105 on Mondays, Tuesdays and Thursdays from 8 a.m. - 4 p.m. on the North Campus.

Admissions

- A High School Diploma or equivalent is required.
- Some courses require placement tests prior to registration.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

Required Courses:

	Class	Lab	Hours Clinical	Work Exper.	Credits
CJC 111 Introduction to Criminal Justice	3	0	0	0	3
CJC 112 Criminology	3	0	0	0	3
CJC 113 Juvenile Justice	3	0	0	0	3
CJC 131 Criminal Law	3	0	0	0	3
CJC 212 Ethics and Community Relations	3	0	0	0	3
CJC 221 Investigative Principles	3	2	0	0	4
CJC 231 Constitutional Law	3	0	0	0	3

Students must choose 28 SHC from the following:

	Class	Lab	Hours Clinical	Work Exper.	Credits
CJC 120 Interviews-Interrogation	1	2			2
CJC 132 Court Procedure & Evidence	3	0	0	0	3
CJC 215 Organization and Administration	3	0	0	0	3
CJC 222 Criminalistics	3	0	0	0	3
CJC 232 Civil Liability	3	0	0	0	3
CJC 114 Investigative Photography	1	2	0	0	2
CJC 121 Law Enforcement Operations	3	0	0	0	3
CJC 122 Community Policing	2	0	0	0	3
CJC 141 Corrections	3	0	0	0	3
CJC 213 Substance Abuse	3	0	0	0	3
CJC 214 Victimology	3	0	0	0	3
CJC 223 Organized Crime	3	0	0	0	3
CJC 233 Correctional Law	3	0	0	0	3
CJC 241 Community-Based Corrections	3	0	0	0	3

CJC 251 Forensic Chemistry I	3	2	0	0	4
COE 112 Cooperative Work Exper.	0	0	20	0	2
Total Credits					**70**

General Education Core Requirements

Students must complete two ENG courses and one COM course from the following:

ENG 111 Expository Writing	3	0	0	0	3
AND					
ENG 113 Literature-Based Research					
OR	3	0	0	0	3
ENG 114 Professional Research &					
Reporting	3	0	0	0	3

And one of the following:

COM 110 Introduction					
to Communication	3	0	0	0	3
COM 231 Public Speaking	3	0	0	0	3
COM 233 Persuasive Speaking	3	0	0	0	3

Students must complete one course from the following:

MAT 115 Mathematical Models	2	2	0	0	3
MAT 140 Survey of Mathematics	3	0	0	0	3
MAT 161 College Algebra	3	0	0	0	3

Students must complete the following course:

CIS 111 Basic PC Literacy	1	2	0	0	2

Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog:

	3	0	0	0	3

Students must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.

	3	0	0	0	3

Culinary Technology (A 55200)

The Culinary Technology curriculum provides specific training required to prepare students to assume positions as trained culinary professionals in a variety of food service settings including full service restaurants, hotels, resorts, clubs, catering operations, contract food service, and health care facilities.

Course offerings emphasize practical application, a strong theoretical knowledge base, professionalism, and provide the critical competencies to successfully meet industry demands. Courses also include sanitation, food/beverage service and control, baking, garde manger, American/international cuisines, food production, and hospitality supervision.

Graduates should qualify for entry level positions, such as line cook, station chef, and assistant pastry chef. American Culinary Federation certification is available to graduates. With experience, graduates may advance to positions such as sous-chef, executive chef, or food service manager.

Degree Awarded

The Associate in Applied Science Degree - Culinary Technology is awarded by the College upon completion of this program.

Note

Students are encouraged to complete CUL 110, Sanitation and Safety, during their first semester of class and are required to complete the course before or concurrent with CUL 180 and/or CUL 280.

In addition to tuition and textbooks, the estimated cost for tools and uniforms is $125.

For More Information

The Culinary Technology program is in the Hospitality Education Division. For more information, call the Program chair - 704- 330-6301, weekdays, 8 a.m.-5 p.m. Program Counselors may be reached by calling 704- 330-6550.

Admissions

- A High School Diploma is required.
- CPCC placement tests are required in English, mathematics and reading.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CUL 110 Sanitation & Safety	**2**	**0**			**2**
CUL 120 Purchasing	2	0			2
CUL 120A Purchasing Lab	0	2			1
CUL 135 Food and					
Beverage Service	**2**	**0**			**2**
CUL 135A Food and Beverage					
Service Lab	**0**	**2**			**1**
CUL 140 Basic Culinary Skills	**2**	**6**			**5**
CUL 160 Baking I	**1**	**4**			**3**
CUL 170 Garde Manger I	**1**	**4**			**3**
CUL 180 International & American					
Regional Cuisine	1	8			5
CUL 240 Advanced Culinary Skills	1	8			5
CUL 260 Baking II	1	4			3
CUL 270 Garde Manger II	1	4			3
CUL 280 Pastry and Confections	1	4			3
HRM 145 Hospitality Supervision	3	0			3
HRM 220 Food and					
Beverage Control	3	0			3
HRM 220A Food and					
Beverage Control Lab	0	2			1
HRM 225 Beverage Management	2	0			2
NUT 110 Nutrition	3	0			3
COE 112 Cooperative Education	0	0		20	2

General Education Core Requirements:

ENG 111 Expository Writing	3	0		3
ENG 114 Professional Research &				
Reporting	3	0		3
MAT 115 Mathematical Models	2	2		3
ECO 251 Principles of				
Microeconomics	3	0		3

Students must choose one Communications course from the following:

COM 110 Introduction to				
Communication	3	0		3
COM 231 Public Speaking	3	0		3

Students must choose one course and lab (if required) from the list of approved humanities courses listed at the end of this section of the catalog.

	3	0		3
Total Credit Hours				**70**

Culinary Technology Certificates

Specialization Certificates

Baking Certificate (A 55200 - C1)

Curriculum Description

This certificate is designed to prepare students who would like to be employed as a baking professional, or those with some culinary experience who want to further their knowledge in this specialized area.

Note

Good reading, writing, math, and communication skills are essential to the successful completion of this program.

Specialization Certificate

This certificate can be earned in the Culinary Technology Program (A 55200) and can be applied toward the Culinary Technology Degree program.

For More Information

The Culinary Technology program is in the Hospitality Education Division. For more information, call the Program Chair, 704- 330-6301, weekdays, 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6550.

Admissions

- A High School Diploma or equivalent is required.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CUL 110 Sanitation and Safety	2				2
CUL 120 Purchasing	2				2
CUL 120A Purchasing Lab		2			1
CUL 160 Baking I	1	4			3
CUL 260 Baking II	1	4			3
CUL 280 Pastry and Confections	1	4			3
COE 112 Cooperative Education	0	0		20	2
Total Credit Hours					**16**

Culinary Certificate (A 55200 - C2)

This certificate is designed to prepare students who would like to be employed as a roundsman in the culinary foodservice profession, or for those with some culinary experience who want to further their knowledge in this area.

Note

Good reading, writing, math, and communication skills are essential to the successful completion of this program.

Specialization Certificate

This certificate can be earned in the Culinary Technology Program (A 55200) and can be applied toward the Culinary Technology Degree program.

For More Information

The Culinary Certificate program is in the Hospitality Education Division. For more information, call the Program Chair, 704- 330-6301, weekdays, 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6550.

Admissions

- A High School Diploma or equivalent is required.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CUL 140 Basic Culinary Skills	2	6			5
CUL 180 International/ American Cuisine	1	8			5
CUL 170 Garde Manger I	1	4			3
CUL 160 Baking I	1	4			3
COE 112 Cooperative Education	0	0		20	2
Total Credit Hours					**18**

Garde Manger Certificate (A 55200 - C3)

Curriculum Description

This certificate is designed to prepare students who would like to be employed in the banquet, catering, cold foods and displays professions, or for those with some culinary experience who want to further their knowledge in this specialized area.

Note

Good reading, writing, math, and communication skills are essential to the successful completion of this program.

Specialization Certificate

This certificate can be earned in the Culinary Technology Program (A 55200) and can be applied toward the Culinary Technology Degree program.

For More Information

The Culinary Technology program is in the Hospitality Education Division. For more information, call the Program Chair, 704- 330-6301, weekdays, 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6550.

Admissions

- A High School Diploma or equivalent is required.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CUL 170 Garde Manger I	1	4			3
CUL 270 Garde Manger II	1	4			3
CUL 110 Sanitation and Safety	2	0			2
CUL 120 Purchasing	2	0			2
CUL 120A Purchasing Lab	0	2			1
HRM 220 Food & Beverage Control	3	0			3
HRM 220A Food & Beverage Control Lab	0	2			1
COE 112 Cooperative Education	0	0		20	2
Total Credit Hours					**17**

Hot Foods Certificate (A 55200 - C4)

This certificate is designed to prepare students who would like to be employed in the culinary profession, or for those with some culinary experience who want to further their knowledge in this specialized area.

Note

Good reading, writing, math, and communication skills are essential to the successful completion of this program.

Specialization Certificate

This certificate can be earned in the Culinary Technology Program (A 55200) and can be applied toward the Culinary Technology Degree program.

For More Information

The Culinary Technology Program is in the Hospitality Education Division. For more information, call the Program Chair, 704- 330-6301, weekdays, 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6550.

Admissions

- A High School Diploma or equivalent is required.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CUL 140 Basic Culinary Skills	**2**	**6**			**5**
CUL 240 Advanced Culinary Skills	1	8			5
CUL 180 International/					
American Cuisine	1	8			5
COE 112 Cooperative Education	0	0		20	2
Total Credit Hours					**17**

Cytotechnology (C45220)

Cytotechnology is an advanced allied health career which prepares the individual to use specialized equipment to study cells for detecting cancer, hormonal abnormalities, and other pathological disease processes. Individuals entering this curriculum must have earned a Bachelor's degree with a concentration in the biological sciences.

Course work includes entry-level knowledge and skills in cell collection and preparation and microscopic use to interpret specimens. Graduates work in conjunction with pathologists to perform special diagnostic procedures.

Upon successful completion of the program, graduates receive a certificate in cytotechnology and are eligible to take the National Registry Examination of the American Society of Clinical Pathologists. Cytotechnologists may find employment in hospital laboratories, universities, and private laboratories.

Certificate Awarded

A Certificate in Cytotechnology is awarded by the College upon successful completion of the program.

Note

The Cytotechnology Program is a full-time, twelve month program that begins fall semester of each year. Progression in the program is dependent on satisfying course prerequisites, corequisites and maintaining at least a C average in all course work. Graduates of this program may apply to take the Cytotechnology Registry Examination administered by the Board of Registry of the American Society of Clinical Pathologists.

The Cytotechnology program at CPCC is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) of the American Medical Association (AMA) in collaboration with the American Society of Cytopathology (ASC).

In addition to tuition and textbooks, costs of the program include the following: uniforms, lab coat, a physical examination including immunizations (tetanus toxoid, Hepatitis B vaccinations [series of three], TB test, color blindness test, etc.), and registration fee for the Board of Registry Examination.

Admissions

Students wishing to apply to the Cytotechnology Program must complete the following requirements prior to admission:
- Bachelor's degree from an accredited college or university which includes:
    - Biology: 20 semester hours (30 quarter hours)
    - Chemistry: 8 semester hours (12 quarter hours)
    - Mathematics: 3 semester hours (5 quarter hours)
    - Humanities: minimum of 4 semester hours (6 quarter hours)
- 2.5 GPA in sciences courses as well as an overall 2.0 GPA is recommended.
- If course work was completed more than ten years prior to entering the program, the student must also submit scores from the Allied Health Professions Admissions Test prior to the application deadline. Information and application for this test can be obtained by contacting the Psychological Corporation at 1-800-622-3231.
- F1 students must submit scores from both the Test of Spoken English (TSE) and the Test of English as a Foreign Language (TOEFL) prior to the application deadline.
- F1 students must submit transcript evaluation for course work completed outside the U.S. from an agency approved by the American Society of Clinical Pathologists. A list of these agencies may be obtained by calling the ASCP at (800) 621-4142.
- All students must submit an application, two letters of recommendation from previous science professors, and all college transcripts as well as complete an interview with the Program chair.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
Fall Semester					
CYT 210 Introduction to					
Clinical Cytology	4	0	0		4
CYT 212 Introduction to Cytologic	4	0	0		4
Techniques					
CYT 214 Gynecologic Cytology	8	12	0		14
CYT 216 Clinical and Diagnostic					
Interpretation I	4	0	0		4
	20	**12**	**0**		**26**
Spring Semester					
CYT 220 Non-Gynecologic					
Cytology	8	8	0		12
CYT 222 Cytopreparation					
Techniques	2	0	0		2
CYT 224 Gynecologic Cytology					
Clinical Practicum I	0	0	12		4
CYT 226 Clinical and Diagnostic					
Interpretation II	4	0	0		4
	14	**8**	**12**		**22**
Summer Semester					
CYT 230 Non-Gynecologic Cytology					
Clinical Practicum	0	0	6		2
CYT 232 Clinical Cytology					
Practicum	0	0	3		1
CYT 234 Gynecologic Cytology					
Clinical Practicum II	0	0	9		3

	Class	Lab	Clinical		
CYT 236 Cytology Literature Review	1	0	0		1
CYT 238 CYT Professional Issues	2	0	0		2
	3	**0**	**18**		**9**
Total Semester Hours					**57**

Dental Assisting Diploma (D45240)

The Dental Assisting curriculum prepares individuals to assist the dentist in the delivery of dental treatment and to function as integral members of the dental team while performing chairside and related office and laboratory procedures.

Course work includes instruction in general studies, biomedical sciences, dental sciences, clinical sciences, and clinical practice. A combination of lecture, laboratory, and clinical experiences provide students with knowledge in infection/hazard control, radiography, dental materials, preventive dentistry, and clinical procedures.

Graduates may be eligible to take the Dental Assisting National Board Examination to become Certified Dental Assistants. As a Dental Assistant II, defined by the Dental Laws of North Carolina, graduates work in dental offices and other related areas.

Diploma Awarded

A Diploma in Dental Assisting is awarded by the college upon completion of this program.

Note

Costs of this program, in addition to tuition and textbooks include uniforms, materials, examinations, physical examination and specific vaccinations. In addition, reliable transportation is needed in order to meet off campus clinical rotation requirements. Students must demonstrate proficiency in microcomputer operations equivalent to or higher than CIS 111.

Students are encouraged to complete certification for First Aid and Health Care Provider Level CPR prior to the second semester.

Students are encouraged to complete certification for First Aid and Health Care Provider Level CPR prior to the second semester.

For More Information

The Dental Assisting program is in the Health Sciences Division. For more information, call the Health Sciences Division at 704- 330-6725, weekdays from 8 a.m. -5 p.m. Program Counselors can be reached by calling 704- 330-6500 or 6468.

Admissions

Please refer to the Admission Steps for Degree Diploma, or Certificate students:
- Complete a CPCC application.
- Submit high school transcripts as well as any college transcripts.
- Take required reading, English and math placement tests.
- Complete an information form in Sloan building, Suite C.
- Schedule and attend counseling orientation to review placement test scores, program information, and select courses for registration.
- All required Advancement Studies must be completed prior to acceptance.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.
- Students must successfully complete all DEN courses prior to beginning clinical rotations.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
BIO 163 Basic Anatomy and Physiology	2	0	5		4
DEN 100 Basic Orofacial Anatomy	2	0	0		2
DEN 101 Preclinical Procedures	4	6	0		7
DEN 111 Infection/Hazard Control	2	0	0		2
DEN 112 Dental Radiography	2	3	0		3
DEN 102 Dental Materials	3	4	0		5
DEN 103 Dental Sciences	2	0	0		2
DEN 104 Dental Health Education	2	2	0		3
DEN 106 Clinical Practice I	1	0	12		5
DEN 105 Practice Management	2	0	0		2
DEN 107 Clinical Practice II	1	0	12		5

General Education Core Requirements

	Class	Lab	Clinical		Credits
ENG 111 Expository Writing	3	0	0		3
COM 231 Public Speaking	3	0	0		3
Total Credit Hours					**47**

Dental Hygiene (A45260)

The Dental Hygiene curriculum prepares individuals with the knowledge and skills to access, plan, implement, and evaluate dental hygiene care for the individual and the community.

Students will learn to prepare the operatory, take patient histories, note abnormalities, plan care, teach oral hygiene, clean teeth, take x-rays, apply preventive agents, complete necessary chart entries, and perform other procedures related to dental hygiene care.

Graduates of this program may be eligible to take national and state/regional examinations for licensure which are required to practice dental hygiene. Employment opportunities include dental offices, clinics, schools, public health agencies, industry, and professional education.

Degree Awarded

The Associate in Applied Science Degree - Dental Hygiene Degree is awarded by the College upon completion of this program.

Note

All students are required to be certified in first aid and cardiopulmonary resuscitation before completion of DEN 131, Dental Hygiene Clinic I.

Students must have completed at least a high school Chemistry course with a laboratory or its equivalent prior to being accepted into the dental hygiene program. (CHM 121 is a recognized substitute.)

Students must demonstrate basic computer competencies through course work or testing. The Division Director of Computer Office and Information Systems will determine equivalent competency.

Costs of this program, in addition to tuition and textbooks, include uniforms, instruments, physical examination, and specific vaccinations.

Licensure to practice dental hygiene is required prior to working in any state or jurisdiction.

For More Information

The Dental Hygiene program is in the Health Sciences Division. For more information, call the Health Sciences Division - 704- 330-6725, weekdays, 8 a.m. -5 p.m. Program Counselors can be reached by calling 704- 330-6500 or 6468.

Admissions

Please refer to the Admission Steps for Degree Diploma, or Certificate students:

- Complete a CPCC application.
- Submit high school transcripts as well as any college transcripts.
- Take required placement tests.
- Complete an information form in Sloan-Morgan Building, Suite C.
- Schedule and attend counseling orientation to review placement test scores, program information, and select courses for registration.
- All needed Advancement Studies courses must be completed prior to acceptance.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

In any Associate Degree Health Sciences program for which there are more applicants who have completed the preadmission requirements than there are positions, admission points will be assigned according to the applicant's documented record. Criteria for selection includes scores on standardized tests, past academic performance, and experience in the field of interest.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
BIO 175 Microbiology	2	2	0		2
BIO 163 Basic Anatomy and Physiology	4	2	0		5
DEN 110 Orofacial Anatomy	2	2	0		3
DEN 111 Infection/Hazard Control	2	0	0		2
DEN 112 Dental Radiography	2	3	0		3
DEN 120 Dental Hygiene Preclinic Lecture	2	0	0		2
DEN 121 Dental Hygiene Preclinic Laboratory	0	6	0		2
DEN 123 Nutrition/Dental Health	2	0	0		2
DEN 124 Periodontology	2	0	0		2
DEN 130 Dental Hygiene Theory I	2	0	0		2
DEN 131 Dental Hygiene Clinic I	0	0	9		3
DEN 140 Dental Hygiene Theory II	1	0	0		1
DEN 141 Dental Hygiene Clinic II	0	0	6		2
DEN 220 Dental Hygiene Theory III	2	0	0		2
DEN 221 Dental Hygiene Clinic III	0	0	12		4
DEN 222 General and Oral Pathology	2	0	0		2
DEN 223 Dental Pharmacology	2	0	0		2
DEN 224 Materials and Procedures	1	3	0		2
DEN 230 Dental Hygiene Theory IV	1	0	0		1
DEN 231 Dental Hygiene Clinic IV	0	0	12		4
DEN 232 Community Dental Health	2	0	3		3
DEN 233 Professional Development	2	0	0		2

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0	0		3
ENG 114 Professional Research and Reporting	3	0	0		3
SOC 210 Introduction to Sociology	3	0	0		3
MAT 140 Survey of Mathematics or	2	2	0		3
MAT 115 Mathematical Models	0	0	3		3
COM 231 Public Speaking	3	0	0		3

Choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog:

	Class	Lab	Hours Clinical	Work Exper.	Credits
	3	0	0		3
Total Credit Hours					**72**

Developmental Disabilities
(See Human Services Technology)

Diesel Mechanics
(See Heavy Equipment and Transport Technology)
(Call 704-330-6220 for program information)

Early Childhood Associate (A55220)

The First Union Early Childhood Associate Program is named in appreciation for a gift from the bank to the CPCC Foundation's Winning Partnership Campaign in 1996. There is growing recognition of the importance of early childhood education among both corporate and governmental leadership.

The Early Childhood Associate curriculum prepares individuals to work with children from infancy through middle childhood in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Head Start Programs, and school-age programs.

Degree Awarded

The Associate in Applied Science Degree - Early Childhood is awarded by the College upon completion of this program.

Program Accreditation

All Early Childhood courses may be applied for training/education hours required by the North Carolina Division of Child Development. Courses are offered for North Carolina Early Childhood and Administrative Credentials.

Note

Students interested in transferring to a senior institution should discuss their education and career goals with their faculty advisor. Students should also consult with a faculty advisor or program counselor regarding the transferability of this program to senior institutions.

For More Information

The Early Childhood Associate program is in the Behavioral and Social Sciences Division. For more information, call the Program Chair at 704- 330-6764, weekdays from 8 a.m. - 5 p.m. The Program Counselor can be reached at 704- 330-5013.

Admissions

- A High School Diploma or equivalent is required.
- After completing admissions form and placement tests, students will then see the Program Counselor who will advise them before they see the Program Chair. An interview with the Program Chair is required for entry into the program.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
COE 111N Cooperative Education I				10	1
EDU 197 Seminar in Early Childhood	2			2	
EDU 131 Children, Family, and Community	3				3
EDU 146 Child Guidance	3				3
EDU 221 Children With Special Needs	3				3
EDU 144 Child Development I	3				3
EDU 145 Child Development II	3				3
EDU 259 Curriculum Planning	3				3
EDU 151 Creative Activities	3				3
EDU 151A Creative Activities		2			1
EDU 251 Exploration Activities	3				3
EDU 251A Exploration Activities		2			1
EDU 280 Literacy Experiences	3				3
EDU 280A Literacy Experiences		2			1
EDU 188 Issues in Early Childhood Education	2				2
COE 121N Work Experience II				10	1
COE 131N Work Experience III				10	1
EDU 297 Seminar	2				2

Choose four credit hours from the following:

	Class	Lab	Hours Clinical	Work Exper.	Credits
EDU 119 Early Childhood Education	3	2			4
OR					
EDU 111 Early Childhood Credentials I	(2)				(4)
AND					
EDU 112 Early Childhood Credentials II	(2)				(4)
OR					
EDU 111 Early Childhood Credentials I	(2)				(4)
AND					
EDU 113 Family/Early Childhood Credential II	(2)				(4)

Students must select from the following options:
Professional Business & Fundamental Electives

Choose 9 SHC from the following:

	Class	Lab	Credits
EDU 261 Early Childhood Administration I	2		2
EDU 262 Early Childhood Administration II	3		3
EDU 234 Infants, Toddlers and Twos	3		3
EDU 153 Health, Safety and Nutrition	3		3
EDU 235 School-Age Dev & Program	2		2
EDU 254 Music and Movement for Children	1	2	2
EDU 241 Adult-Child Relations	2		2
EDU 263 Dev School-Age Program	2		2
EDU 288 Advanced Issues in Early Childhood Ed.	2		2
BUS 230 Small Business Management	3		3
BUS 137 Principles of Management	3		3
ACC 115 College Accounting	3	2	4
PSY 150 General Psychology	3		3
PSY 241 Developmental Psychology	3		3
PSY 281 Abnormal Psychology	3		3

	Class		Credits
SOC 210 Introduction to Sociology	3		3
SOC 220 Social Problems	3		3

General Education Core Requirements

	Class	Lab	Credits
ENG 111 Expository Writing	3		3
ENG 114 Professional Research & Reporting	3		3
COM 110 Introduction to Communication	3		3
MAT 140 Survey of Mathematics	3		3
CIS 111 Basic PC Literacy	1	2	2
SOC 213 Sociology of the Family	3		3
Choose three (3) credit hours course from the list of approved humanities courses listed at the end of this section of the catalog:	3		3
Total Credit Hours			**72**

Early Childhood Associate Certificate (A55220)

Specialization Certificate (A55220-C1)

The Certificate listed below can be earned in the Early Childhood Associate program and can be applied toward the Early Childhood Associate Degree. For more information call the Program Chair - 704- 330-6764, weekdays, 8 a.m. - 5 p.m.

Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
EDU 119 Early Childhood Education	3	2			4
OR					
EDU 111 Early Childhood Credential I	(2)				(2)
AND					
EDU 112 Early Childhood Credential II	(2)				(2)
OR					
EDU 113 Family/Early Childhood Credential II	(2)				(2)
AND					
EDU 144 Child Development I	3				3
EDU 146 Child Guidance	3				3
EDU 151 Creative Activity	3				3
EDU 151A Creative Activity Lab	0	2			1
COE 111 Cooperative Education I					1
SEM 197 Seminar in Early Childhood Education					2
Total Credit Hours					**17**

Electrical/Electronics Technology (A35220)

The Electrical/Electronics Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial and industrial facilities.

Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code, and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical/electronics field as an on-the-job trainee or apprentice, assisting in the layout, installation, and maintenance of electrical/electronic systems.

Degree Awarded

The Associate in Applied Science Degree - Electrical/Electronics Technology is awarded by the College upon completion of this program.

For More Information

The Electrical/Electronics Technology program is in the Technical Careers Division. For more information, call the Program Chair at 704- 330-4452 or the Technical Careers Division office at 704- 330-4445, weekdays from 8 a.m.- 5 p.m. Program Counselors can be reached by calling 704- 330-6229 or 6059.

Admissions

- Completion of the High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

Title	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 112 DC/AC Electricity	3	6			5
ELC 113 Basic Wiring I	2	6			4
ELC 117 Motors and Control	2	6			4
ELC 128 Introduction to PLC	2	3			3
ELN 133 Digital Electronics	3	3			4
ELC 118 National Electrical Codes	1	2			2
ELC 119 NEC Calculations	1	2			2
ELC 121 Electrical Estimating	1	2			2
ELC 125 Diagrams and Schematics	1	2			2
ELC 132 Electrical Drawings	1	3			2
ELC 126 Electrical Computations	2	2			3
ELC 228 PLC Applications	2	6			4
ELC 114 Basic Wiring II	2	6			4
ELC 110 Telecom Circuits/Devices	3	3			4
OR					
ELC 115 Industrial Wiring	2	6			4
ELN-229 Industrial Electronics	2	4			4
ELC 229 Applications Project	1	3			2
ELC 127 Software for Technicians	1	2			2
ELC 234 Electrical System Design	2	3			3
OR					
ELC 215 Electrical Maintenance	2	3			3
OR					
ELC 116 Telecom Cabling	1	2			3
OR					
COE 123 Co-op Work Experience II	0	0	0	30	3

A Student can take ELC 110 or ELC 234 or ELC 215 or COE 123.

General Education Core Requirements

Title	Class	Lab	Credits
ENG 111 Expository Writing	3	0	3
ENG 114 Professional Research and Reporting	3	0	3
MAT 115 Mathematical Models	3	0	3

(or student may choose a minimum of three (3) credit hours from the list of approved mathematics courses listed at the end of this section of the catalog

Student must select one of the following:

COM 110 Introduction to Communications	3	0	3
COM 231 Public Speaking	3	0	3
COM 233 Persuasive Speaking	3	0	3
HUM 115 Critical Thinking	3	0	3

(or student may choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog)

PSY 150 General Psychology	3	0	3

(or student may choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog)

Total Credit Hours   **74**

Electrical/Electronics Technology Diploma (D35220)

The Electrical/Electronics Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial and industrial facilities.

Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code, and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical/electronics field as an on-the-job trainee or apprentice, assisting in the layout, installation, and maintenance of electrical/electronic systems.

Diploma Awarded

A Diploma in Electrical/Electronics Technology is awarded by the College upon completion of this program.

For More Information

The Electrical/Electronics Technology program is in the Technical Careers Division. For more information, call the Program Chair at 704- 330-4452 or the Technical Careers Division office at 704- 330-4445 weekdays from 8 a.m.- 5 p.m. Program Counselors can be reached by calling 704- 330-6229 or 6059.

Admissions

- Completion of the High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

Title	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 112 DC/AC Electricity	3	6	0	0	5
ELC 113 Basic Wiring I	2	6	0	0	4
ELC 114 Basic Wiring II	2	6	0	0	4
ELC 115 Industrial Wiring	2	6	0	0	4
OR					
ELC 110 Telecom Circuits/Devices	3	3			4
ELC 117 Motors and Control	2	6	0	0	4
ELC 118 National Electrical Code	1	2	0	0	2
ELC 119 NEC Calculations	1	2	0	0	2
ELC 121 Electrical Estimating	1	2	0	0	2
ELC 125 Diagrams and Schematics	1	2	0	0	2
ELC 132 Electrical Drawings	1	3	0	0	2
ELC 215 Electrical Maintenance	2	3	0	0	3
WLD 112 Basic Welding Process	1	2	0	0	2
COE 112 Co-Op Work Experience I in lieu of WLD 112	0	0	0	20	2
ELC 127 Software for Technicians	1	2			2

General Education Core Requirements

Title	Class	Lab	Hours Clinical	Work Exper.	Credits
* ENG 101 or a more advanced ENG course	3	0	0	0	3

Choose 3 credit hours from either

	Class	Lab	Clinical	Work Exper.	Credits
MAT 101 or MAT 115	2	2	0	0	3
Total Credit Hours					**42**

*Any student who has completed a diploma level general education course must take the appropriate associate degree general education course if he or she chooses to pursue the higher credential.

Electrical/Electronics Technology Certificates (A35220)

Specialization Certificates

The certificates listed below can be earned in the Electrical/Electronics Technology (A35220) program.

For More Information

For more information, call the Program Chair - 704- 330-4452, or the Technical Careers Division at 704- 330-4445, weekdays from 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6229 or 6059.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Electrical/Electronics Technology With A Specialization in Electrical Installation and Maintenance Commercial (C35220-C1)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 112 DC/AC Electricity	3	6	0	0	5
ELC 114 Basic Wiring II	2	6	0	0	4
ELC 115 Industrial Wiring	2	6	0	0	4
ELC 118 National Electrical Code	1	2	0	0	2
ELC 119 NEC Calculations	1	2	0	0	2
Total Credit Hours					**17**

Electrical/Electronics Technology With A Specialization in Electrical Installation and Maintenance Controls (C35220-C2)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 111 Introduction to Electricity	2	2	0	0	3
ELC 128 Introduction to PLC	2	3	0	0	3
ELC 117 Motors and Control	2	6	0	0	4
ELC 118 National Electrical Code	1	2	0	0	2
ELC 228 PLC Applications	2	6	0	0	4
ELC 125 Diagrams and Schematics	1	2	0	0	2
Total Credit Hours					**18**

Electrical/Electronics Technology With A Specialization in Electrical Installation and Maintenance Residential (C35220-C3)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 112 DC/AC Electricity	3	6	0	0	5
ELC 113 Basic Wiring I	2	6	0	0	4
ELC 118 National Electrical Code	1	2	0	0	2
ELC 119 NEC Calculations	1	2	0	0	2
ELC 132 Electrical Drawings	1	3	0	0	2
Total Credit Hours					**15**

Electrical/Electronics Technology With A Specialization in Electrical Installation and Maintenance Industrial (C35220-C4)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC112 DC/AC Electricity	3	6	0	0	5
ELC 115 Industrial Wiring	2	6	0	0	4
ELC 117 Motors and Control	2	6	0	0	4
ELC 128 Introduction to PLC	2	2	0	0	3
ELC 215 Electrical Maintenance	2	3	0	0	3
					19

Electrical/Electronics Technology with a Specialization Installation and Maintenance Telecommunications (C35220-C5)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC112 DC/AC Electricity	3	6			5
ELC 113 Basic Wiring II	2	6			4
ELC 110 Telecom Circuits/Devices	2	6			4
ELC 116 Telecom Cabling	1	2			2
ELC 127 Software for Technicians	1	2			2
Total Credit Hours					**17**

Electrical Engineering Technology (A40180)

The Electrical Engineering Technology curriculum is designed to provide training for entry-level technicians desiring a career in electrical maintenance and management, or in the design, planning, construction, development and installation of electrical systems, machines, and power generating equipment.

Beginning with electrical fundamentals, course work progressively introduces electronics, electrical machines and controls, and electrical power systems. Other course work includes the study of various fields associated with the electrical/electronic industry.

Graduates may seek employment as technicians, engineering assistants, technical managers, or salespersons in electrical generation/distribution, industrial maintenance, electronic repair or other fields requiring a broad-based knowledge of electrical and electronic concepts.

Degree Awarded

The Associate in Applied Science Degree - Electrical Engineering Technology is awarded by the College upon completion of the program.

Program Accreditation

The Electrical Engineering Technology program at Central Piedmont Community College is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Note

The Electrical Engineering Technology program provides a basic background in the practical application of both fundamental and specialized electrical and electronic principles. Courses are designed to present technical content in an order that provides students with progressive levels of job-related knowledge and skills. From fundamental electrical and electronic courses, concentrated study in various fields of the electrical industry,

including industrial controls, electrical machines and pro-grammable logic controllers, and automated manufacturing/robotics.

The Computer/Electrical/Electronics Engineering Technology laboratories are staffed during day and evening hours so that students may devote as much time as possible to laboratory assignments. These modern facilities include adequate equipment to support practical laboratory activity in all courses.

Students who do not take program-related courses for two consecutive semesters must re-enter the program under the Catalog in effect as the time of re-entry.

Students in the Electrical Engineering Technology (A40180) program desiring to earn an additional degree in Computer Engineering Technology (A40160), or Electronics Engineering Technology (A40200) must meet the course requirements of the additional degree, and in the process complete a minimum of 12 unduplicated required or elective semester hours credit.

For More Information

The Electrical Engineering Technology program is in the Engineering Technologies Division. For more information, call the Program chair at 704- 330-6479, weekdays from 9 a.m. and 5 p.m. or the Program Counselor at 704- 330-6881.

Admissions

- A High School Diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry, and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy, and science.
- CPCC placement tests are required in English and mathematics. Advancement Studies in mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 131 DC/AC Circuit Analysis	4	3	0	0	5
ELC 135 Electrical Machines I	2	2	0	0	3
ELC 136 Electrical Machines II	3	3	0	0	4
ELC 231 Electric Power System	3	2	0	0	4
ELN 131E Electronic Devices	3	3	0	0	4
ELN 133E Digital Electronics	3	3	0	0	4
ELN 260 Programmable Logic Controllers	3	3	0	0	4
ELC 133 Advanced Circuit Analysis	2	3	0	0	3
ELN 132 Linear IC Applications	3	3	0	0	4
ELN 150 CAD for Electronics	1	3	0	0	2
ELN 275 Troubleshooting	1	2	0	0	2
Technical Electives (5 credit hours to be selected from the following courses)					5
					44
ATR 211 Robot Programming	2	3	0	0	3
CET 111 Computer Upgrade and Repair I	2	3	0	0	3
CIS 110 Introduction to Computers	2	2	0	0	3
COE 112E Cooperative Work Experience I	0	0	0	20	2
COE 122E Cooperative Work Experience II	0	0	0	20	2
ELC 193 Selected Topics in Electrical Engineering Technology	2	3	0	0	3

ELC 213 Instrumentation	3	2	0	0	4
ELC 234E Electrical Systems Design	2	3	0	0	3
ELC 293 Selected Topics in Electrical Engineering Technology	2	3	0	0	3
ELN 154 Intro to Data Communications	2	3	0	0	3
ELN 232 Introduction to Microprocessors	3	3	0	0	4
ELN 233 Microprocessor Systems	3	3	0	0	4
ELN 234 Communication Systems	3	3	0	0	4
ELN 235 Data Communication Systems	3	3	0	0	4
ELN 236 Fiber Optics and Lasers	3	2	0	0	4
ELN 237 Local Area Networks	2	3	0	0	3
ELN 238 Advanced LANs	2	3	0	0	3
ELN 247 Electronic Applications Project	1	3	0	0	2
MAT 271 Calculus I	3	2	0	0	4
MEC 265 Fluid Mechanics	2	2	0	0	3

General Education Core Requirements

ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research and Reporting	3	0	0	0	3
COM 110 Introduction to Communications	3	0	0	0	3
MAT 121 Algebra/Trigonometry	3	0	0	0	3
MAT 122 Algebra/Trigonometry	2	2	0	0	3
MAT 223 Applied Calculus	2	2	0	0	3
PHY 131 Physics	3	2	0	0	4
PHY 132 Physics Elec & Magnetism	3	2	0	0	4
Student must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog	3	0	0	0	3
Student must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog	3	0	0	0	3
					19
Total Credit Hours					**76**

Electronics Engineering Technology (A40200)

The Electronic Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial/computer controls, manufacturing systems, communication systems, and power electronic systems.

A broad-based core of courses, including basic electricity, solid-state fundamentals, digital concepts, and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, field service technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

Degree Awarded

The Associate in Applied Science Degree - Electronics Engineering Technology is awarded by the College upon completion of this program.

Program Accreditation

The Electronics Engineering Technology program at Central Piedmont Community College is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Note

Electronics Engineering Technology involves the practical application of electrical and electronic fundamentals of design, fabrication, manufacturing, testing, repair and maintenance of electronic components, circuits, and systems. The electronics engineering technician is concerned with analog and digital circuitry, microprocessors, microcomputers, and their practical application in modern industrial settings.

The Electronics Engineering Technology curriculum provides a basic background in the practical application of both fundamental and specialized electronic principles. Courses are designed to present technical content in an order that provides students with progressive levels of job-related knowledge and skills. From fundamental electrical and electronic courses, students advance to electronic specialty courses that provide concentrated study in various fields of the electronic industry, including computer-electronics, microprocessors, systems maintenance, data communication, robotics, and printed circuit board layout and design using CAD.

The Computer/Electrical/Electronics Engineering Technology laboratories are staffed during day and evening hours so that students may devote as much time as possible to laboratory assignments. These modern facilities include adequate equipment to support practical laboratory activity in all courses.

Students who do not take program-related courses for two consecutive semesters must re-enter the program under the Catalog in effect as the time of re-entry.

Students in Electronics Engineering Technology (A40200) program desiring to earn an additional degree in Computer Engineering Technology (A40160) or Electrical Engineering Technology (A40180), must meet the course requirements of the additional degree, and in the process complete a minimum of 12 unduplicated required or elective semester hours credit.

For More Information

The Electronics Engineering Technology program is in the Engineering Technologies Division. For more information, call the Program chair at 704- 330-6479, weekdays from 9 a.m. and 5 p.m. or the Program Counselor at 704- 330-6881.

Admissions

- A High School Diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry, and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy and science.
- CPCC placement tests are required in English and mathematics. Advancement Studies mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CSC 133 C Programming	2	3	0	0	3
ELC 131 DC/AC Circuit Analysis	4	3	0	0	5
ELN 131E Electronic Devices	3	3	0	0	4
ELN 132 Linear IC Applications	3	3	0	0	4
ELN 133E Digital Electronics	3	3	0	0	4
ELN 232 Introduction to Microprocessors	3	3	0	0	4
ELC 133 Advanced Circuit Analysis	2	3	0	0	3
ELC 213 Instrumentation	3	2	0	0	4
ELN 150 CAD for Electronics	1	3	0	0	2
ELN 247 Electronic Applications Project	1	3	0	0	2
ELN 275 Troubleshooting	1	2	0	0	2

Technical Electives (7 credit hours To be selected from the following courses)

	Class	Lab	Hours Clinical	Work Exper.	Credits
					7
					44
ATR 211 Robot Programming	2	3	0	0	3
CET 212 Integrated MFG Systems	1	3	0	0	2
CIS 110 Introduction to Computers	2	2	0	0	3
ELN 260 Programmable Logic Controllers	3	3	0	0	4
CET 111 Computer Upgrade and Repair I	2	3	0	0	3
COE 112E Cooperative Work Experience I	0	0	0	20	2
COE 122E Cooperative Work Experience II	0	0	0	20	2
ELC 135 Electrical Machines I	2	2	0	0	3
ELC 136 Electrical Machines II	3	3	0	0	4
ELC 231 Electric Power Systems	3	2	0	0	4
ELC 234E Electrical Systems Design	2	3	0	0	3
ELN 154 Intro to Data Communications	2	3	0	0	3
ELN 193 Selected Topics in Electronics Engineering Technology	2	3	0	0	3
ELN 233 Microcomputer Systems	3	3	0	0	4
ELN 234 Communication Systems	3	3	0	0	4
ELN 235 Data Communication Systems	3	3	0	0	4
ELN 236 Fiber Optics and Lasers	3	2	0	0	4
ELN 237 Local Area Networks	2	3	0	0	3
ELN 238 Advanced LANs	2	3	0	0	3
ELN 293 Selected Topics in Electronics Engineering Technology	2	3	0	0	3
MEC 265 Fluid Mechanics	2	2	0	0	3
MAT 271 Calculus I	3	2	0	0	4

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research and Reporting	3	0	0	0	3
COM 110 Introduction to Communications	3	0	0	0	3
MAT 121 Algebra/Trigonometry	3	0	0	0	3
MAT 122 Algebra/Trigonometry	2	2	0	0	3
MAT 223 Applied Calculus	2	2	0	0	3
PHY 131 Physics Mechanics	3	2	0	0	4
PHY 132 Physics Elec & Magnetism	3	2	0	0	4
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog	3	0	0	0	3

Student must choose a minimum of three (3) credit hours from
the list of approved behavioral and social sciences
courses listed at the end of this section of the catalog

3	0	0	0	3
				20

Total Credit Hours 76

Fire Protection Technology (A55240)

The Fire Protection Technology curriculum is designed to provide individuals with technical and professional knowledge to make decisions regarding fire protection for both public and private sectors. It also provides a sound foundation for continuous higher learning in fire protection, administration, and management.

Course work includes classroom and laboratory exercises to introduce the student to various aspects of fire protection. Students will learn technical and administrative skills such as hydraulics, hazardous materials, arson investigation, fire protection safety, fire suppression management, law and code.

Graduates should qualify for employment in governmental agencies, industrial firms, insurance rating organizations, educational organizations, and municipal fire departments. Employed persons should have opportunities for skilled and supervisory level positions within their current organizations.

Degree Awarded

The Associate in Applied Science Degree - Fire Protection Technology is awarded by the College upon completion of the program.

Note

Students may obtain a suggested course sequence list from the Program Counselor or the Program Chair.

For More Information

The Fire Protection Technology program is a part of the Public Safety Division. For more information, call the Program Chair at 704- 330-6705, weekdays from 8 a.m. - 4:30 p.m. The Program Counselor can be reached by calling 704- 330-6059.

Admissions

- A High School Diploma or equivalent is required.
- Placement tests are required for admission to particular courses.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

Title	Class	Lab	Hours Clinical	Work Exper.	Credits
FIP 120 Introduction to Fire Protection	2	0	0	0	2
FIP 124 Fire Prevention & Public Education	3	0	0	0	3
*FIP 128 Arson Investigation	3	0	0	0	3
FIP 220 Fire Fighting Strategies	3	0	0	0	3
FIP 230 Chem. Of Hazardous Mat I	5	0	0	0	5
FIP 132 Building Construction	3	0	0	0	3
FIP 136 Inspections and Codes	3	0	0	0	3
FIP 140 Industrial Fire Protection	2	0	0	0	2
*FIP 144 Sprinklers & Auto Alarms	3	2	0	0	4
*FIP 148 Portable and Fixed Exting. Sys	2	2	0	0	3
FIP 152 Fire Protection Law	2	0	0	0	2
FIP 221 Advanced Fire Fighting Strategies Prereq: FIP 220	3	0	0	0	3
FIP 224 Instructional Methodology	4	0	0	0	4
FIP 231 Chem of Hazardous Mat II Prereq: FIP 230	4	2	0	0	5
*FIP 232 Hydraulics & Water Dist. Prereq: MAT 115	3	2	0	0	4
FIP 264 Flame Prop & Mat. Rating	1	4	0	0	3
FIP 276 Managing Fire Services	3	0	0	0	3

Pending State approval.

General Education Core Requirements

ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research & Reporting	3	0	0	0	3
COM 231 Public Speaking	3	0	0	0	3
MAT 115 Mathematical Models	2	2	0	0	3
CIS 111 Basic PC Literacy	1	2	0	0	2
PSY 150 General Psychology	3	0	0	0	3

Students must choose a minimum of three (3) credit hours from
the list of approved humanities courses listed at the end
of this section of the catalog

Total Credit Hours	67	12	0	75

Gerontology

(See Human Services Technology)

Graphic Arts and Imaging Technology (A30180)

The Graphics Arts and Imaging Technology curriculum is designed to provide students with knowledge and skills necessary for employment in the printing, publishing, packaging, and related industries.

Students will receive hands-on training in computer publishing, imaging technology, offset lithography, screen printing, and emerging printing technologies. Training may also include flexography, graphic design, and multimedia.

Graduates should qualify for career opportunities within the printing and publishing industries.

Degree Awarded

The Associate in Applied Science Degree-Graphic Arts and Imaging Technology is awarded by the College upon completion of this program.

For More Information

The Graphic Arts and Imaging Technology program is in the Technical Careers Division. For more information, call the Program Chair at 704- 330-4425 or the Division office at 704- 330-4445, weekdays from 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6229 or 6059. See Graphic Arts instructors or program counselors for suggested sequence.

Admissions

- A High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements
Major Core Requirements Courses

Title	Class	Lab	Hours Clinical	Work Exper.	Credits
GRA 121 Graphic Arts I	2	4			4
GRA 151 Computer Graphics I	1	3			2
GRA 152 Computer Graphics II	1	3			2
GRA 221 Graphic Arts II	2	4			4
GRA 255 Image Manipulation I	1	3			2

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	Class	Lab	Clinical	Work Exper.	Credits
GRA 256 Image Manipulation II	1	3			2
GRD 141 Graphic Design I	2	4			4
					20

Electives (Select 20 hours from the following courses)

GRA 230 Substrates and Ink	2	0			2
GRA 245 Printing Sales Service	3	0			3
GRA 110 Graphic Arts Orientation	2	0			2
GRA 140 Graphic Arts Imaging	1	2			2
GRA 252 Imaging Techniques	1	4			3
GRA 280 Printing Management	2	0			2
GRA 222 Graphic Arts III	2	4			4
GRA 153 Computer Graphics III	1	3			2
GRA 154 Computer Graphics IV	1	3			2
GRA 161 Computer Graphics Apps I	0	3			1
GRA 162 Computer Graphics Apps II	0	3			1
GRA 163 Computer Graphics Apps III	0	3			1
GRA 164 Computer Graphics Apps IV	0	3			1
COE 112L Co-op Work Experience I	0	0		20	2
COE 132L Co-op Work Experience III	0	0		20	2
					20

Select 9 hours from the following:

PRN 155 Screen Printing I	1	3			2
PRN 240 Print Estimating/Planning	3	0			3
PRN 131 Flexography I	2	4			4
PRN 156 Screen Printing II	1	3			2
PRN 221 Offset Press Operations	1	4			3
PRN 140 Bindery & Finishing	1	2			2
					9

*Students planning to transfer should consult advisor.

Required General Education Courses:

ENG 111 Expository Writing	3	0			3
AND					
ENG 113 Literature-Based Research	3	0			3
OR					
ENG 114 Professional Research & Reporting	3	0			3

Select one (1) COM course from the following:

COM 110 Introduction to Communication	3	0			3
COM 231 Public Speaking	3	0			3
COM 233 Persuasive Speaking	3	0			3

Take the following:

MAT 115 Mathematical Models	2	2			3
PSY 150 General Psychology (or students may choose three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog	3	0			3
ART 111 Art Appreciation (or students may choose three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog	3	0			3
Total Credit Hours					**67**

Graphic Arts and Imaging Technology Flexography Concentration (A3018A)

Flexography is a concentration under the Graphic Arts and Imaging Technology curriculum. This curriculum is designed to allow students to gain further study into the flexographic printing production process.

Students will produce jobs for labels, tags, boards, packaging, and corrugated jobs found in segments of the flexographic industry. Students will concentrate on color reproduction and produce products while understanding the limitations within the production process.

Graduates should qualify for career opportunities within the printing, publishing, and packaging industries.

Degree Awarded

The Associate in Applied Science Degree-Graphic and Imaging Technology/Flexography is awarded by the College upon completion of this program.

For More Information

Graphic and Imaging Technology/Flexography is in the Technical Careers Division. For more information, call the Program Chair at 704-330-4425 or the Division office at 704-330-4445, weekdays from 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704-330-6229 or 6059. See Graphic Arts instructors or program counselors for suggested sequence of courses.

Admissions

- A High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements
Major Core Requirements Courses

	Class	Lab	Hours Clinical	Work Exper.	Credits
GRA 121 Graphic Arts I	2	4			4
GRA 151 Computer Graphics I	1	3			2
GRA 152 Computer Graphics II	1	3			2
GRA 221 Graphic Arts II	2	4			4
GRA 255 Image Manipulation I	1	3			2
GRA 256 Image Manipulation II	1	3			2
GRD 141 Graphic Design I	2	4			4
					20

Required Concentration Courses

GRA 153 Computer Graphics III	1	3			2
PRN 131 Flexography I	2	4			4
PRN 132 Flexography II	2	4			4
PRN 231 Flexography III	2	4			4
PRN 232 Flexography IV	2	4			4
PRN 241 Flexo Applications I	2	4			4
PRN 242 Flexo Applications II	2	4			4
					26

Other Major Course Electives

Select 12 hours from the following courses:

PRN 155 Screen Printing I	1	3			2
GRA 230 Substrates and Ink	2	0			2
PRN 240 Print Estimating/Planning	3	0			3
GRA 245 Printing Sales Service	3	0			3
GRA 110 Graphic Arts Orientation	2	0			2
GRA 140 Graphic Arts Imaging	1	2			2
GRA 252 Imaging Techniques	1	4			3
GRA 280 Printing Management	2	0			2
PRN 156 Screen Printing II	1	3			2
PRN 221 Offset Press Operations	1	4			3
GRA 222 Graphics Arts III	2	4			4
GRA 154 Computer Graphics IV	1	3			2
PRN 140 Bindery and Finishing	1	2			2
GRA 161 Computer Graphics Apps I	0	3			1
GRA 162 Computer Graphics Apps II	0	3			1

	Class	Lab	Hours Clinical	Work Exper.	Credits
GRA 163 Computer Graphics Apps III	0	3			1
GRA 164 Computer Graphics Apps IV	0	3			1
COE 112L Co-op Work Experience I	0	0		20	2
COE 132L Co-op Work Experience II	0	0		20	2

Students planning to transfer should consult an advisor.

General Education Core Requirements:

	Class	Lab			Credits
ENG 111 Expository Writing	3	0			3
AND					
ENG 113 Literature Based Research	3	0			3
OR					
ENG 114 Professional Research and Reporting	3	0			3

Select one (1) COM course from the following:

	Class	Lab			Credits
COM 110 Introduction to Communications	3	0			3
COM 231 Public Speaking	3	0			3
COM 233 Persuasive Speaking	3	0			

Take the following:

	Class	Lab			Credits
MAT 115 Mathematical Models	2	2			3

PSY 150 General Psychology (or student may choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.

	Class	Lab			Credits
	3	0			3

ART 111 Art Appreciation (or student may choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.

	Class	Lab			Credits
	3	0			3
Total Credit Hours					**76**

Graphic Arts & Imaging Technology Certificates (A30180)

Specialization Certificates

The Certificates listed below can be earned in the Graphic Arts & Imaging Technology (A30180) program.

For More Information

For more information, call the Program Chair at 704-330-4425, or the Technical Careers Division at 704-330-4445, weekdays from 8 a.m. – 5 p.m. Program Counselors can be reached by calling 704-330-6229 or 6059.

Admissions

• Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.
• Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Graphic Arts & Imaging Technology With A Specialization in Duplicator Operation (C30180-C1)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
GRA 110 Orientation to Graphic Arts	2	0	0		2
GRA 121 Graphic Arts I	2	4	0		4
GRA 230 Substrates and Ink	2	0	0		2
PRN 221 Offset Press Operation	1	4	0		3
COE 112L Co-op Work Experience	0	0	0	20	2

Graphic Arts & Imaging Technology With A Specialization in General Print Shop Assistant (C30180-C2)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
GRA 110 Orientation to Graphic Arts	2	0	0		2
GRA 121 Graphic Arts I	2	4	0		4
GRA 151 Computer Graphics I	1	3	0		2
PRN 140 Bindery and Finishing	1	2	0		2
GRA 245 Printing Sales and Service	3	0	0		3
COE 112L Co-op Work Experience	0	0		20	2

Graphic Arts & Imaging Technology With A Specialization in Screen Printing Operator (C30180-C3)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
GRA 110 Orientation to Graphic Arts	2	0	0		2
GRA 121 Graphic Arts I	2	4	0		4
GRA 151 Computer Graphics I	1	3	0		2
PRN 155 Bindery and Finishing	1	2	0		2
COE 112L Co-op Work Experience I	0	0		20	2
Optional Classes					
PRN 156 Screen Printing II	1	3			2
COE 132L Co-op Work Experience II	0	0		20	2

Graphic Arts & Imaging Technology With A Specialization in Desktop Publishing (C30180-C4)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
GRA 110 Orientation to Graphic Arts	2	0	0		2
GRA 121 Graphic Arts I	2	4	0		4
GRA 151 Computer Graphics I	1	3	0		2
GRA 152 Computer Graphics II	1	3	0		2
GRA 161 Computer Graphics Applications I	0	3	0		1
COE 112L Co-op Work Experience I	0	0	0	20	2
GRA Computer Graphics III	1	3	0		2
GRA Computer Graphics IV	1	3	0		2
GRA 255 Image Manipulation I	1	3	0		2
GRA 162 Computer Graphics Applications II	0	3	0		1
COE 132L Co-op Work Experience II	0	0		20	2
Optional Classes					
GRA 256 Image Manipulation II	1	3			2
GRA 140 Graphic Arts Imaging	1	2			2
GRA 163 Computer Graphics Applications III	0	3			1
GRA 164 Computer Graphics Applications IV	0	3			1

Health Information Technology (A45360)

The Health Information Technology curriculum prepares individuals with the knowledge and skills to process, analyze, abstract, compile, maintain, manage, and report health information.

Students will supervise department functions; classify, code and index diagnoses and procedures; coordinate information for cost control, quality management, statistics, marketing, and planning; monitor governmental and non-governmental standards; facilitate research; and design system controls to monitor patient information security.

Graduates of this program may be eligible to write the national certification examination to become an Accredited Record Technician (ART). Employment opportunities include hospitals, rehabilitation facilities, nursing homes, health insurance organizations, out-patient clinics, physicians' offices, Hospice, and mental health facilities.

Admission

- High school courses in the following areas would be helpful to students: computer science, biology, and health occupations.
- A High School Diploma or equivalent is required for program admission.
- Students must be able to show evidence of basic keyboarding skills upon admission.
- Placement testing in English, mathematics, and reading is required to qualify for ENG 111 and MAT 115. Scores on placement tests may require students to take specified Advancement Studies courses. If required, completion of these courses is necessary prior to program admission. Students may, with approval of the Program chair, take no more than two preadmission courses during their first semester of program admission. During the admissions process, students are encouraged to obtain a course sequence list from the Program Counselor. This curriculum may be completed on a part-time or full-time basis.
- In addition to tuition and textbooks, there are program-related costs: coding classes require the purchase of current versions of ICD-9-CM and CPT-4 code books; directed practice requires a physical examination and updated immunizations; directed practice courses require travel to health care facilities that may be as much as 40 miles from Charlotte; opportunities for one or more directed practice rotations that may require overnight travel are offered to students but are not required. While every effort is made to accommodate the needs of students who do not have access to an automobile, the program cannot guarantee that directed practice sites will be located on bus lines.
- Progression in this program is dependent upon a score of C or better in all courses with MRT, BIO and MED prefixes.
- Students entering this program should take the courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

For More Information

The Health Information Technology program is in the Health Sciences Division. For more information, call the Program Chair at 704- 330-6452, weekdays from 8 a.m. -5 p.m. Program Counselors can be reached by calling 704- 330-6500 or 6468.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HIT 110 Health Information Orientation	2	0	0		2
HIT 112 Health Law and Ethics	3	0	0		3
HIT 114 Record Systems/Standards	2	2	0		3
HIT 210 Health Care Statistics	3	2	0		4
HIT 212 Coding/Classification I	3	3	0		4
HIT 214 Coding/Classification II	3	3	0		4
HIT 216 Quality Management	2	2	0		3
HIT 218 Management	3	0	0		3
HIT 226 Principles of Disease	3	0	0		3
HIT 280 Professional Issues	2	0	0		2
HIT 122 Directed Practice I	0	0	3		1
HIT 124 Directed Practice II	1	0	3		2
HIT 222 Directed Practice III	0	0	6		2
HIT 220 Computers in Healthcare	1	2	0		2
BIO 168 Anatomy and Physiology I	3	3	0		4
BIO 169 Anatomy and Physiology II	3	3	0		4
CIS 110 Introduction to Computers	2	2	0		3
MED 121 Medical Terminology I	**3**	**0**	**0-**		**3**
MED 122 Medical Terminology II	3	0	0		3
OSI 136 Word Processing	1	2	0		2

General Education Core Requirements

	Class	Lab	Clinical	Credits
ENG 111 Expository Writing	0	0	3	3
ENG 114 Professional Research and Reporting	0	0	3	3
MAT 115 Mathematical Models	2	0	3	2
PSY 150 General Psychology	0	0	3	3
COM 110 Introduction to Communication OR				
COM 231 Public Speaking	0	0	3	3

The Student student may choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.

	0	0	3	3
Total Credit Hours				**75**

Heavy Equipment and Transport Technology (A60240)

Pending State Approval

The Heavy Equipment and Transport Technology curriculum is designed to prepare individuals in developing basic knowledge and skills needed for employment in diesel powered medium and heavy duty vehicles.

Class room and lab experiences will be based on construction features, principles of operation, trouble shooting and repair of medium and heavy duty vehicles

Upon completion graduates should qualify for entry level employment as a technician in a dealership, fleet shop, or independent garage. Graduates should be able to pass the ASE certification exam.

Degree Awarded

The Associate in Applied Science Degree — Heavy Equipment and Transport Technology is awarded by the College upon completion of this program.

Note

Students must furnish required hand tools and protective clothing, as well as textbooks. A list can be obtained from an instructor or program chair by calling 704-330-6482.

For More Information

The Heavy Equipment and Transport Technologies program is located in the Transport System Technologies Division. For more information, please contact the Program Chair at 704-330-6482, or the Division office at 704- 330-6220, weekdays from 8 a.m. - 5 p.m. Program counselors can be reached by calling 704- 330-6059.

Admissions

- A High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HET 110 Engines	3	9			6
HET 112 Diesel Elec. Systems	3	6			5
HET 118 Mechanical Orientation	2	0			2
HET 231 Med/Heavy Duty Brakes	1	3			2
HET 230 Air Brakes	1	2			2
HET 233 Suspension & Steering	2	4			4
HET 112 Hydraulics	1	2			2
HET 119 Mech. Transmission	2	2			3
HET 115 Electronic Engines	2	3			3
HET 126 Prev. Maintenance Lab	1	3			2
HET 127 Shop Rules & Regulations	1	0			1
HET 128 Med/Heavy Duty Tune-Up	1	2			2
HET 134 Mech. Fuel Injection	2	2			3
HET 125 Preventive Maintenance	1	3			2
HET 116 AC Systems	1	2			2
AUT 186 PC Literacy	1	2			2
COE 112 Co-Op Work Exp. I	0	0		20	2
COE 122 Co-Op Work Exp. II	0	0		20	2
COE 132 Co-Op Work Exp. III	0	0		20	2
COE 212 Co-Op Work Exp. IV	0	0		40	2

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0			3
ENG 114 Research & Report Writing	3	0			3
COM 110 Intro. To Comm.	3	0			3
MAT 115 Mathematical Models	2	2			3
COM 140 Intercultural Comm.	3	0			3
PSY 150 General Psychology	3	0			3
Students must choose 2 of the following:					
WLD 112 Basic Welding Process	1	3			2
WLD 110 Cutting Process	1	3			2
WLD 111 Oxy-Fuel Welding	1	3			2
Total Credit					**72**

Heavy Equipment and Transport Technology Diploma (D60240)

The Heavy Equipment and Transport Technology curriculum is designed to prepare individuals with the knowledge and skills needed to service, troubleshoot, and repair medium and heavy duty vehicles.

The course work includes the purpose, construction features, and principles of operation of medium and heavy duty vehicles.

Graduates of the curriculum should qualify for entry level employment opportunities in a dealership, fleet shop, or independent garage as a technician. Graduates who have met the work experience requirement should also be prepared to take the ASE certification exam.

Diploma Awarded

A Diploma in Heavy Equipment and Transport Technology is awarded by the College upon completion of this program.

For More Information

The Heavy Equipment and Transport Technology program is in the Transport System Technologies Division. For more information, call the Program Chair - 704- 330-6482, or the Transport Systems Technologies Division office - 704- 330-6232, weekdays, 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6059.

Admissions

- Completion of a High School Diploma or the equivalent is encouraged as a foundation for a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HET 110 Engines	3	9			6
HET 112 Diesel Electrical Systems	3	6			5
HET 118 Mechanical Orientation	2	0			2
HET 116 Air Conditioning/ Diesel Equipment	1	2			2
HET 119 Mechanical Transmissions	2	2			3
HET 125 Preventive Maintenance	1	3			2
HET 233 Suspension and Steering	2	4			4
HET 127 Shop Rules and Regulations	1	0			1
HET 115 Electronic Engines	2	3			3
HET 231 Medium/Heavy Duty Brake Systems	1	3			2
CIS 111 Basic PC Literacy	1	2			2
COE 112 Co-op Work Experience I	0	0		20	2
COE 122 Co-op Work Experience II	0	0		20	2
Electives - Choose 1 course from list below:					
WLD 112 Basic Welding Processes	1	3			2
WLD 110 Cutting Processes	1	3			2
WLD 111 Oxy-Fuel Welding	1	3			2

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0			3
MAT 115 Mathematical Models	2	2			3
Total Credit Hours					**46**

Heavy Equipment and Transport Technology Certificates (C60240)

Specialization Certificates

The certificates listed below can be earned in the Heavy Equipment and Transport Technology program.

For More Information

For more information, call the Program Chair at 704- 330-6482, or the Transport System Technologies Division office at 704- 330-6220, weekdays from 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6059.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Heavy Equipment and Transport Technology Certificate With a Specialization in Fleet Service (C60240-C1)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HET 112 Diesel Electrical Systems	3	6			5
HET 119 Mechanical Transmissions	2	2			3
HET 125 Preventive Maintenance	1	3			2
HET 126 Preventive Maintenance Lab	0	3			1
HET 127 Shop Rules and Regulations	1	0			1
HET 230 Air Brakes	1	2			2
COE 122 Co-op Work Experience II	0	0		20	2
Total Credit Hours					**16**

Heavy Equipment and Transport Technology Certificate With a Specialization in Engines (C60240-C2)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HET 110 Engines	3	9			6
HET 115 Electronic Engines	2	3			3
HET 127 Shop Rules and Regulations	1	0			1
HET 128 Medium/Heavy					
Duty Tune-up	1	2			2
CIS 112 Windows	1	2			2
COE 112 Co-op Work Experience I				20	2
Total Credit Hours					**16**

Heavy Equipment and Transport Technology Certificate With a Specialization in Fuel Injection (C60240-C3)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HET 112 Diesel Electrical Systems	3	6			5
HET 115 Electronic Engines	2	3			3
HET 127 Shop Rules and Regulations	1	0			1
HET 128 Medium/Heavy					
Duty Tune-up	1	2			2
HET 134 Mechanical Fuel Injection	2	2			3
COE 112 Co-op Work Experience I				20	2
Total Credit Hours					**16**

Heavy Equipment and Transport Technology Certificate With a Specialization in Equipment Maintenance and Repair (C60240-C4)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HET 110 Engines	3	9			6
HET 112 Diesel Electrical Systems	3	6			5
HET 127 Shop Rules and Regulations	1	0			1
COE 112 Co-op Work Experience I				20	2
CIS 112 Windows	1	2			2
Total Credit Hours					**16**

Horticulture Technology (A15240)

The Horticulture Technology curriculum is designed to prepare individuals for various careers in horticulture. Classroom instruction and practical laboratory applications of horticultural principles and practices are included in the program of study.

Course work includes plant science, plant materials, propagation, soils, fertilizers, and pest management. Also included are courses in plant production, landscaping, and the management and operation of horticulture businesses.

Graduates should qualify for employment opportunities in nurseries, garden centers, greenhouses, landscape operations, gardens, and governmental agencies. Graduates should also be prepared to take the certified plant professional and licensed pesticide applicators examinations.

Degree Awarded

The Associate in Applied Science - Horticulture Technology is awarded by the College upon completion of this program.

For More Information

The Horticulture Technology program is in the Engineering Technologies Division. For more information call the Program chair at 704- 330-6926, weekdays from 8 a.m. - 5 p.m. The Program Counselor can be reached at 704- 330-6881.

Admission

- A High School Diploma or equivalent (available through CPCC) is required.
- CPCC placement tests are required in English and mathematics. Advancement studies mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HOR 160 Plant Materials I	2	2	0	0	3
HOR 162 Applied Plant Science	2	2	0	0	3
HOR 164 Horticulture Pest					
Management	2	2	0	0	3
HOR 166 Soils and Fertilizers	2	2	0	0	3
HOR 168 Plant Propagation	2	2	0	0	3
HOR 150 Introduction to					
Horticulture	2	0	0	0	2
HOR 124 Nursery Operations	2	3	0	0	3
HOR 134 Greenhouse Operations	2	2	0	0	3
HOR 112 Landscape Design I	2	3	0	0	3
HOR 116 Landscape Management	2	3	0	0	3
HOR 260 Plant Materials II	2	2	0	0	3
HOR 255 Interiorscapes	1	2	0	0	2
HOR 273 Horticulture					
Management and Marketing	3	0	0	0	3
HOR 257 Arboriculture Practices	1	3	0	0	2
HOR 253 Horticulture Turfgrass	2	2	0	0	3
CIS 111 Basic PC Literacy	1	2	0	0	2
COE 111 Co-op Work Experience I	0	0	0	10	1

Technical Electives (12 credit hours to be selected from

the following courses)					**12**
HOR 213 Landscape Design II	2	2	0	0	3
HOR 114 Landscape Construction	2	2	0	0	3
HOR 215 Landscape Irrigation	2	2	0	0	3
HOR 170 Horticulture					
Computer Application	1	3	0	0	2
HOR 118 Equipment Operation					
and Maintenance	1	3	0	0	2
HOR 265 Advanced Plant Materials	1	3	0	0	2
FLO 189 Basic Floral Design	1	2	0	0	2
HOR 154 Introduction to					
Horticulture Therapy	2	4	0	0	4
HOR 293 Selected Topics					
in Horticulture	1-3	0-6	0	0	3
TRF 110 Intro Turfgrass Culture					
and Identification	3	2	0	0	4
TRF 152 Landscape Maintenance	2	2	0	0	3
Total Major Hours					**57**

General Education Core Requirements

ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research					
and Report	3	0	0	0	3
MAT 115 Mathematical Models	2	2	0	0	3
COM 110 Introduction					
to Communication	3	0	0	0	3

	Class	Lab	Hours Clinical	Work Exper.	Credits
Students must choose three (3) credit hours from the approved list of humanities courses listed at the end of this section of the catalog	3	0	0	0	3
(Students must choose three (3) credit hours from the approved list of behavioral and social sciences courses listed at the end of this section of the catalog.	3	0	0	0	3
Total General Education Hours					**18**
Total Credit Hours					**75**

Horticulture Technology Diploma (D15240)

This Diploma is designed to prepare individuals for entry level positions in the area of horticulture. Course work includes plant science, plant materials, soils and fertilizers, pest management, propagations, plant production, and landscaping.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HOR 160 Plant Materials I	2	2	0	0	3
HOR 162 Applied Plant Science	2	2	0	0	3
HOR 164 Horticulture Pest Management	2	2	0	0	3
HOR 166 Soils and Fertilizers	2	2	0	0	3
HOR 168 Plant Propagation	2	2	0	0	3
HOR 150 Introduction to Horticulture	2	0	0	0	2
HOR 124 Nursery Operations	2	3	0	0	3
HOR 134 Greenhouse Operations	2	2	0	0	3
HOR 112 Landscape Design	2	3	0	0	3
HOR 253 Horticulture Turfgrass	2	2	0	0	3

Technical Electives (6 credit hours to be selected from the following courses)

	Class	Lab	Hours Clinical	Work Exper.	Credits
					6
HOR 235 Interiorscapes	1	2	0	0	2
HOR 273 Horticulture Management and Marketing	3	0	0	0	3
HOR 257 Arboriculture Practices	1	3	0	0	2
COE 111 Co-op Work Experience I	0	0	0	10	1
HOR 260 Plant Materials II	2	2	0	0	3
HOR 213 Landscape Design II	2	2	0	0	3
HOR 114 Landscape Construction	2	2	0	0	3
HOR 215 Landscape Irrigation	2	2	0	0	3
HOR 170 Horticulture Computer Application	1	3	0	0	2
HOR 118 Equipment Operation and Maintenance	1	3	0	0	2
HOR 265 Advanced Plant Materials	1	2	0	0	2
FLO 189 Basic Floral Design	1	2	0	0	2
TRF 152 Landscape Maintenance	2	2	0	0	3
HOR 154 Introduction to Horticulture Therapy	2	4	0	0	4
HOR 293 Selected Topics in Horticulture	1-3	0-6	0	0	3
TRF 110 Intro Turfgrass Culture and Identification	3	2	0	0	4
Total Major Hours					**35**

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0	0	0	3
MAT 115 Mathematical Models		2	2	0	03
Total General Education Hours					**6**
Total Credit Hours					**41**

Horticulture Technology Certificates (A15240)

Specialization Certificates

Landscape Design Certificate (A15240-C1)

This certificate is designed to prepare individuals for horticultural careers in the specialized area of landscape design. Course work includes plant materials, design, graphics, and landscape computer applications.

	Class	Lab	Hours Clinical	Work Exper.	Credits
HOR 160 Plant Materials I	2	2	0	0	3
HOR 112 Landscape Design I	2	3	0	0	3
HOR 260 Plant Materials II	2	2	0	0	3
HOR 213 Landscape Design II	2	2	0	0	3
HOR 170 Horticulture Computer Applications	1	3	0	0	2
HOR 265 Advanced Plant Materials	1	2	0	0	2
Total Credit Hours					**16**

Horticulture Production Certificate (A15240-C2)

This certificate is designed to prepare individuals for horticultural careers as growers of nursery and greenhouse crops. Course work includes plant materials, plant science, pest management, propagation and the operation of nurseries and greenhouses.

	Class	Lab	Hours Clinical	Work Exper.	Credits
HOR 160 Plant Materials I	2	2	0	0	3
HOR 162 Applied Plant Science	2	2	0	0	3
HOR 164 Horticulture Pest Management	2	2	0	0	3
HOR 168 Plant Propagation	2	2	0	0	3
HOR 124 Nursery Operations	2	3	0	0	3
HOR 134 Greenhouse Operations	2	2	0	0	3
Total Credit Hours					**18**

Landscape Maintenance Certificate (A15240-C3)

This certificate is designed to prepare individuals for horticultural careers in maintaining landscape and turf areas. Course work includes plant materials, soils and fertilizers, pest management and landscape, and turfgrass management.

	Class	Lab	Hours Clinical	Work Exper.	Credits
HOR 160 Plant Materials I	2	2	0	0	3
HOR 166 Soils and Fertilizers	2	2	0	0	3
HOR 164 Horticulture Pest Management	2	2	0	0	3
HOR 116 Landscape Management	2	3	0	0	3
HOR 253 Horticulture Turfgrass	2	2	0	0	3
HOR 118 Equipment Operation and Maintenance OR	1	3	0	0	2
HOR 257 Arboriculture Practices					
Total Credit Hours					**17**

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Horticulture Therapy Certificate (A15240-C4)

This certificate is designed to prepare individuals for horticultural careers in working with special population groups utilizing horticulture as therapy. Course work includes horticulture therapy, production courses, and social science.

	Class	Lab	Hours Clinical	Work Exper.	Credits
HOR 154 Introduction to					
Horticulture Therapy	2	4	0	0	4
PSY 150 General Psychology	3	0	0	0	3
Select three of the following courses for a					
minimum of 8 semester hours:					8
HOR 160 Plant Materials I	2	2	0	0	3
HOR 255 Interiorscapes	1	2	0	0	2
HOR 124 Nursery Operations	2	2	0	0	3
HOR 134 Greenhouse Operations	2	2	0	0	3
HOR 168 Plant Propagation	2	2	0	0	3
FLO 186 Basic Floral Design	1	2	0	0	2
Total Credit Hours					**15**

Hotel and Restaurant Management (A 25240)

The Hotel and Restaurant Management curriculum prepares students to understand and apply the administrative and practical skills needed for supervisory and managerial positions in hotels, motels, resorts, inns, restaurants, institutions, and clubs.

Course work includes front office management, food preparation, guest services, sanitation, menu writing, quality management, purchasing, and other areas critical to the success of hospitality professionals.

Upon completion graduates should qualify for supervisory or entry-level management positions in food and lodging including front office, reservations, housekeeping, purchasing, dining room, and marketing. Opportunities are also available in the support areas of food and equipment sales.

Degree Awarded

The Associate in Applied Science Degree - Hotel and Restaurant Management is awarded by the College upon completion of this program.

For More Information

The Hotel and Restaurant Management program is in the Hospitality Education Division. For more information, call the Program Chair - 704- 330-6669, weekdays, 8 a.m.-5 p.m. Program Counselors can be reached by calling 704- 330-6550.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics, and reading.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CUL 110 Sanitation and Safety	2	0			2
HRM 110 Introduction to					
Hospitality	2	0			2
HRM 115 Housekeeping	3	0			3
HRM 115A Housekeeping Lab	0	2			1
HRM 120 Front Office Procedures	3	0			3
HRM 120A Front Office Procedures					
Lab	0	2			1
HRM 140 Hospitality/Tourism Law	3	0			3
HRM 145 Hospitality Supervision	3	0			3
HRM 210 Meetings & Conventions	3	0			3
HRM 220 Food &					
Beverage Controls	3	0			3
HRM 220A Food & Beverage					
Controls Lab	0	2			1
HRM 225 Beverage Management	2	0			2
HRM 230 Club & Resort					
Management	2	0			2
HRM 240 Hospitality Marketing	3	0			3
HRM 280 Hospitality Management					
Problems	3	0			3
CIS 111 Basic PC Literacy	1	2			2
CUL 135 Food & Beverage Service	2	0			2
CUL 135A Food & Beverage					
Service Lab	0	2			1
CUL 140 Basic Culinary Skills	2	6			5
ACC 120 Principals of Accounting	3	2			4
COE 112 Cooperative Education	0	0		20	2
Free Elective	3	0			3

General Education Requirements:

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0			3
ENG 114 Professional Research					
and Reporting	3	0			3
MAT 115 Mathematical Models	3	0			3
ECO 251 Principles of					
Microeconomics	3	0			3
Choose one course from the following:					
COM 110 Introduction to					
Communication	3	0			3
COM 231 Public Speaking	3	0			3
Student must choose a minimum of three (3) credit hours from the list					
of approved humanities courses listed at the end					
of this section of the catalog.	3	0			3
Total Credit Hours					**72**

Hotel Management Diploma (D25240)

The Hotel Management Diploma curriculum is designed to train individuals to become hotel managers and apply the administrative and practical skills needed for supervisory positions. The graduate of this program will be primarily trained for entry level positions.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HRM 110 Introduction to					
Hospitality	2	0			2
HRM 115 Housekeeping	3	0			3
HRM 115A Housekeeping Lab	0	2			1
HRM 120 Front Office Procedures	3	0			3
HRM 120A Front Office Procedures					
Lab	0	2			1
HRM 140 Hospitality Tourism Law	3	0			3
HRM 145 Hospitality Supervision	3	0			3
HRM 210 Meetings and Conventions	3	0			3
HRM 240 Hospitality Marketing	3	0			3
HRM 280 Hospitality Management					
Problems	3	0			3
CUL 110 Sanitation and Safety	2	0			2

	Class	Lab	Hours Clinical	Work Exper.	Credits
COE 112H Cooperative Education	0	0		20	2
CIS 111 Basic PC Literacy	1	2			2

General Education Requirements

	Class	Lab			Credits
ENG 111 Expository Writing	**3**	**0**			**3**
MAT 115 Mathematical Models	3	0			3
COM 231 Public Speaking	3	0			3
Total Credit Hours					**40**

Diploma Awarded

A diploma in Hotel Management is awarded by the College upon completion of this program.

For More Information

The Hotel and Restaurant Management program is in the Hospitality Education Division. For more information, call the Program Chair at 704-330-6669, weekdays, 8 a.m. – 5 p.m. Program Counselors can be reached by calling 704-330-6550.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics, and reading.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Hotel Management Certificate (C25240-C2)

The Hotel Management Certificate curriculum is designed to train individuals to become restaurant managers and apply the administrative and practical skills needed for supervisory positions. The graduate of this program will be primarily trained for entry level positions.

	Class	Lab	Hours Clinical	Work Exper.	Credits
HRM 110 Introduction to					
Hospitality	**2**	**0**			**2**
HRM 115 Housekeeping	3	0			3
HRM 115A Housekeeping Lab	0	2			1
HRM 120 Front Office Procedures	3	0			3
HRM 120A Front Office Procedures					
Lab	0	2			1
HRM 140 Hospitality Tourism Law	3	0			3
HRM 280 Hospitality Management					
Problems	3	0			3
COE 112H Cooperative Education	0	0		20	2
Total Credit Hours					**18**

Certificate Awarded

A certificate in Hotel Management is awarded by the College upon completion of this program.

For More Information

The Hotel and Restaurant Management program is in the Hospitality Education Division. For more information, call the Program Chair at 704-330-6669, weekdays 8 a.m. – 5 p.m. Program Counselors can be reached by calling 704-330-6550.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics, and reading.

- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Restaurant Management Diploma (D25240)

The Restaurant Management Diploma curriculum is designed to train individuals to become restaurant managers and apply the administrative and practical skills needed for supervisory positions. The graduate of this program will be primarily trained for entry level positions.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HRM 110 Introduction to					
Hospitality	**2**	**0**			**2**
HRM 140 Hospitality Tourism Law	3	0			3
HRM 145 Hospitality Supervision	3	0			3
HRM 220 Food and Beverage					
Control	3	0			3
HRM 220A Food and Beverage					
Control Lab	0	2			1
HRM 225 Beverage Management	2	0			2
HRM 280 Hospitality Management					
Problems	3	0			3
CUL 135 Food and Beverage					
Service	2	0			2
CUL 135A Food and Beverage					
Service Lab	0	2			1
CUL 140 Basic Culinary Skills	2	6			5
CUL 110 Sanitation and Safety	2	0			2
COE 112H Cooperative Education	0	0		20	2
CIS 111 Basic PC Literacy	1	2			2

General Education Requirements

	Class	Lab			Credits
ENG 111 Expository Writing	**3**	**0**			**3**
MAT 115 Mathematical Models	3	0			3
COM 231 Public Speaking	3	0			3
Total Credit Hours					**40**

Diploma Awarded

A diploma in Restaurant Management is awarded by the College upon completion of this program.

For More Information

The Hotel and Restaurant Management program is in the Hospitality Education Division. For more information, call the Program Chair at 704-330-6669, weekdays, 8 a.m. – 5 p.m. Program Counselors can be reached by calling 704-330-6550.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics, and reading.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Restaurant Management Certificate (C25240-C1)

The Restaurant Management Certificate curriculum is designed to train individuals to become restaurant managers and apply the administrative and practical skills needed for supervisory positions. The graduate of this program will be primarily trained for entry level positions.

	Class	Lab	Hours Clinical	Work Exper.	Credits
HRM 110 Introduction to					
Hospitality	**2**	**0**			**2**
HRM 145 Hospitality Supervision	3	0			3
HRM 220 Food and Beverage					
Control	3	0			3
HRM 220A Food and Beverage					
Control Lab	0	2			1
HRM 225 Beverage Management	2	0			2
CUL 110 Sanitation and Safety	2	0			2
CUL 135 Food and Beverage Service	2	0			2
CUL 135A Food and Beverage					
Service Lab	0	2			1
COE 112H Cooperative Education	0	0		20	2
Total Credit Hours					**18**

Certificate Awarded

A certificate in Restaurant Management is awarded by the College upon completion of this program.

For More Information

The Hotel and Restaurant Management program is in the Hospitality Education Division. For more information, call the Program Chair at 704-330-6669, weekdays 8 a.m. – 5 p.m. Program Counselors can be reached by callling 704-330-6550.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics, and reading.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Human Services Technology (A45380)

The Human Services Technology curriculum prepares students for entry-level positions in institutions and agencies which provide social, community, and educational services.

Students will take courses from a variety of disciplines. Emphasis in core courses is placed on development of relevant knowledge, skills, and attitudes in human services. Fieldwork experience will provide opportunities for application of knowledge and skills learned in the classroom.

Graduates should qualify for positions in mental health, child care, family services, social services, rehabilitation, correction, and educational agencies.

Degree Awarded

The Associate in Applied Science Degree - Human Services Technology is awarded by the College upon completion of this program.

Program Accreditation

Human Services Technology courses have been approved by the National Board for Certified Counselors (NBCC) for Professional Counselor (NCC) renewal credit. Substance Abuse courses may be used in applying for certification by the North Carolina Professional Substance Abuse Certification Board.

Note

Internships in a variety of community agencies enable students to gain specialized experience to parallel their classroom work.

A suggested course sequence list is available from the Program Chair.

For More Information

The Human Services Technology program is in the Nursing and Human Services Division 704- 330-6496.

For Additional Information on:

- Human Services Technology Program, 704- 330-6695
- Substance Abuse Program, 704- 330-6380
- Development Disabilities Program, 704- 330-4152
- Gerontology Program, 704- 330-6624

Admissions

- Complete required CPCC application.
- Submit high school transcripts as well as any college transcripts.
- Take required placement tests.
- Attend Human Services orientation.
- Complete required Advancement Studies reading and writing classes with a C or better.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HSE 110 Intro to Human Services	2	2			3
HSE 112 Group Process I	1	2			2
HSE 123 Interviewing Techniques	2	2			3
HSE 125 Counseling	2	2			3
HSE 210 Human Services Issues	2				2
HSE 225 Crisis Intervention	3				3
PSY 150 General Psychology	3				3
SOC 213 Sociology of the Family	3				3
PSY 241 Developmental Psychology	3				3
HSE 120 Interpersonal Relations	3				3
HSE 212 Group Process II	1	2			2
HSE 220 Case Management	2	2			3
HSE 227 Children & Adol. in Crisis	3				3
HSE 242 Family Systems	3				3
HSE 127 Conflict Resolution	2	2			3
SAB 110 Substance Abuse					
Overview	3				3
COE 111 Co-op Work Experience I				10	1
COE 115 Work Experience					
Seminar I	1				1
COE 121 Co-op Work Experience II				10	1
COE 125 Work Experience					
Seminar II	1				1

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3				3
ENG 114 Prof. Research &					
Reporting	3				3
MAT 115 Mathematical Models	2	2			3
CIS 111 Basic PC Literacy	1	2			2

	Class	Lab	Clinical		Credits
SOC 225 Social Diversity	3	0			3
Humanities Elective					

Students must chose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section.

Students must complete one COM course from the following:

	Class	Lab	Clinical		Credits
COM Elective					
COM 111 Introduction to Communication	3	0	0	0	3
COM 231 Public Speaking	3	0	0	0	3
COM 233 Persuasive Speaking	3	0	0	0	3
Total Credit Hours					**69**

Human Services Technology Developmental Disabilities Concentration (A4538A)

The Human Services Technology/Developmental Disabilities program is designed to train students to work with children and adults with physical, mental, and emotional disabilities. Students will specialize in the areas of developmental disabilities and mental retardation.

Students will gain an understanding of the handicapping effects of developmental disabilities in medical, psychological, social, educational, vocational, and economic terms. Fieldwork and clinical experience in community agencies providing comprehensive services to persons with disabilities and their families will be provided.

Graduates should qualify for employment in group homes, foster care homes, respite services, vocational rehabilitation agencies, sheltered workshops, supported employment programs, adult vocational programs, early childhood intervention programs, and other programs for individuals with developmental disabilities and mental retardation.

Degree Awarded

The Associate in Applied Science Degree - Human Services Technology with a concentration in Developmental Disabilities is awarded by the College upon completion of this program.

Program Accreditation

Human Services Technology courses have been approved by the National Board for Certified Counselors (NBCC) for Professional Counselor (NCC) renewal credit. Human Services Technology/Substance Abuse courses may be used in applying for certification by the North Carolina Professional Substance Abuse Certification Board.

Note

Internships in a variety of community agencies enable students to gain specialized experience to parallel their classroom work. The duration of the internship is fall through spring semester, second year.

A suggested course sequence list is available from the Program Chair.

For More Information

The Developmental Disabilities Program is in the Nursing and Human Services Division 704- 330-6496.

For Additional Information on:

• Developmental Disabilities Program, 704- 330-4152

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HSE 110 Intro to Human Services	2	2			3
HSE 112 Group Process I	1	2			2
HSE 123 Interviewing Techniques	2	2			3
HSE 125 Counseling	2	2			3
HSE 210 Human Services Issues	2				2
HSE 225 Crisis Intervention	3				3
PSY 150 General Psychology	3				3
SOC 213 Sociology of the Family	3				3
PSY 241 Developmental Psychology	3				3
DDT 110 Developmental Disabilities	3				3
DDT 120 Teaching Developmentally Disabled	3				3
DDT 210 DDT Health Issues	3				3
DDT 220 Program Planning Process	3				3
COE 111 Co-op Work Experience I				10	1
COE 115 Co-op Work Experience Seminar I	1				1
HSE 242 Family Systems	3				3
SAB 110 Substance Abuse Overview	3				3
HSE 120 Interpersonal Relations	3				3
COE 121 Co-op Work Experience				10	1
COE 125 Co-op Work Experience Seminar II	1				1

General Education Core Requirements

	Class	Lab	Clinical	Exper.	Credits
ENG 111 Expository Writing	3				3
ENG 114 Prof. Research & Reporting	3				3
COM 110 Intro to Communications OR	3				3
COM 231 Public Speaking	3				
MAT 115 Mathematical Models	2	2			3
CIS 111 Basic PC Literacy	1	2			2
SOC 225 Social Diversity	3				3

Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section.

					3
Total Credit Hours					**70**

Developmental Disabilities Certificate

Specialization Certificate

Human Services Technology With A Specialization in Developmental Disabilities (C4538A-C1)

This certificate is designed to provide the student with a concentrated course of study in the field of developmental disabilities. Upon completion of the four courses, a certificate will be awarded by the college. This certificate may be applied toward the Associate Degree in Human Services Technology with a concentration in Developmental Disabilities.

For more information, call the Program Chair at 704-330-4152.

Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
DDT 110 Developmental Disabilities	3				3
*DDT 120 Teaching Developmentally Disabled	3				3

	Class	Lab	Clinical	Work Exper.	Credits
*DDT 210 DDT Health Issues	3				3
*DDT 220 Program Planning Process	3				3
Total Credit Hours					**12**

*Prerequisite or corequisite is required; check course descriptions for details.

Human Services Technology Gerontology Concentration (A4538B)

The Gerontology Program prepares students to specialize in direct service delivery work to older adults and their families. The curriculum provides both theoretical and applied models for understanding issues of aging.

Course work includes physical, psychological and social aspects of the aging process; as well as health, wellness, nutrition, diet, exercise, and well-being. Fieldwork experiences provide opportunities to work in a variety of public and private agencies.

Graduates should qualify for employment in nursing and assisted living facilities, specialized adult care services, respite services, and other programs servicing older adults and their families. Graduates choosing to continue their education may select a variety of programs at senior institutions.

Degree Awarded

The Associate in Applied Science Degree in Human Services concentration in Gerontology is awarded by the College upon completion of this program.

Program Accreditation

Human Services Technology courses have been approved by the National Board for Certified Counselors (NBCC) for Professional Counselor (NCC) renewal credit.

Note

Internships in a variety of community agencies enable students to gain specialized experience to parallel their classroom work. The duration of the internship is fall through spring semesters, second year.

A suggested course sequence list is available from the Program Chair.

Admissions

- Complete a CPCC application.
- Submit high school transcripts as well as any college transcripts.
- Take required placement tests.
- Attend Human Services orientation.
- Complete required Advancement Studies reading and writing classes with a C or better.

For More Information

The Gerontology Program is in the Nursing and Human Services Division 704- 330-6624.

For Additional Information on:

- Gerontology Program, 704- 330-6624
- Human Services Technology Program, 704- 330-6695
- Substance Abuse Program, 704- 330-6380
- Developmental Disabilities Program, 704- 330-4152

General Education Core Requirements:

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3				3
ENG 114 Prof. Research & Reporting	3				3
Students must choose a minimum of three (3) credit hours from the list of approved Humanities courses listed at the end of this section of the catalog	3				3
Students must choose a minimum of three (3) credit hours from a list of approved Communication courses listed at the end of this section of the catalog	3				3
MAT 115 Mathematical Models	2	2			3
SOC 220 Social Problems	3				3
CIS 111 Basic PC Literacy	1	2			2
Total					**20**

Major Hours Requirements

	Class	Lab	Clinical	Work Exper.	Credits
HSE 110 Introduction to Human Services	2	2			3
HSE 112 Group Process 1	1	2			2
HSE 123 Interviewing Techniques	2	2			3
HSE 125 Counseling	2	2			3
HSE 210 Human Services Issues	2				2
HSE 225 Crisis Intervention	3				3
PSY 150 General Psychology	3				3
SOC 213 Sociology of the Family	3				3
PSY 241 Developmental Psychology	3				3
Total					**25**

Other Major Hours Requirements

	Class	Lab	Clinical	Work Exper.	Credits
GRO 120 Gerontology	3				3
GRO 220 Psy/Soc Aspects of Aging	3				3
GRO 230 Health, Wellness & Nutrition	3	2			4
HSE 120 Interpersonal Relations	3				3
HSE 155 Community and Resource Management	2				2
HSE 220 Case Management	2	2			3
SAB 110 Substance Abuse Overview	3				3
COE 111 Co-op Work Experience I				10	1
COE 115 Work Experience Seminar 1	1				1
COE 121 Co-op Work Experience II				10	1
COE 125 Co-op Work Experience Seminar II	1				1
Total					**25**
Total Credit Hours					**70**

Gerontology Certificate

Please call the Program Chair for more information at 704-330-6624.

Human Services Technology Substance Abuse Concentration (A4538E)

The Human Services Technology/Substance Abuse program prepares students to assist in drug and alcohol counseling, prevention oriented educational activities, rehabilitation with recovering clients, managing community-based programs, counseling in residential facilities and pursuit of four-year degrees.

Course work includes classroom and experiential activities oriented toward an overview of chemical dependency psychological/sociological process, the twelve core functions, intervention techniques with individuals in groups, and follow-up activities with recovering clients.

Graduates should qualify for positions as substance abuse counselors, DUI counselors, halfway house workers, residential

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facility employees, and substance education specialist. The educational and clinical experiences help graduates meet the requirements of the North Carolina Substance Abuse Professional Certification Board for Certified Substance Abuse Counselor.

Degree Awarded

The Associate in Applied Science Degree - Human Services Technology with a concentration in Substance Abuse is awarded by the College upon completion of this program.

Program Accreditation

Human Services Technology and Substance Abuse courses have been approved by the National Board for Certified Counselors (NBCC) for Professional Counselor (NCC) renewal credit. Human Services Technology/Substance Abuse courses may be used in applying for certification by the North Carolina Substance Abuse Professional Certification Board.

Note

Internships in a variety of community agencies enable students to gain specialized experience to parallel their classroom work. The duration of the internship is comprised of two semesters, in the second year.

A suggested course sequence is available from the Program Chair.

For More Information

The Substance Abuse Program is in the Nursing and Human Services Division 704- 330-6496.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
HSE 110 Introduction to Human Services	2	2			3
HSE 112 Group Process I	1	2			2
HSE 123 Interviewing Techniques	2	2			3
HSE 125 Counseling	2	2			3
HSE 210 Human Services Issues	2				2
HSE 225 Crises Intervention	3				3
PSY 150 General Psychology	3				3
PSY 241 Developmental Psychology	3				3
SOC 213 Sociology of the Family	3				3
COE 111 Co-op Work Experience I				10	1
COE 115 Work Experience Seminar I	1				1
SAB 110 Substance Abuse Overview	3				3
SAB 120 Intake and Assessment	3				3
SAB 125 Substance Abuse Case Management	2	2			3
SAB 135 Addictive Process	3				3
SAB 240 Substance Abuse Issues in Client Services	3				3
HSE 120 Interpersonal Relationships	3				3
SAB 210 Substance Abuse Counseling	2	2			3
SAB 220 Group Techniques and Therapy	2	2			3
SAB 230 Family Therapy	2	2			3
COE 121 Co-op Work Experience				10	1
COE 125 Work Experience Seminar II	1				1

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3				3
ENG 114 Professional Research & Reporting	3				3
COM 231 Public Speaking	3				3
MAT 115 Mathematical Models	3				3
Students must select a minimum of three (3) credit hours from the approved list of humanities courses listed at the end of this section of the catalog.	3				3
CIS 111 Basic PC Literacy	1	2			2
SOC 225 Social Diversity	3				3
Total Credit Hours					**76**

Substance Abuse Certificate Program

Specialization Certificate

Human Services Technology With A Specialization in Substance Abuse (C4538E-C2)

This certificate is designed to provide the student with a concentrated course of study in the field of Substance Abuse. Upon completion of the 5 courses, a certificate will be awarded by the college. This certificate may be applied toward the Associate Degree in Human Services Technology with a concentration in Substance Abuse. These courses may also be used towards Certified Substance Abuse Counselor (CSAC), a certification acquired through the North Carolina Substance Abuse Professional Certification Board. These courses are also NBCC approved.

For more information, call the Substance Abuse Program Chair at 704-330-6380.

Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
SAB 110 Substance Abuse Overview	3				3
SAB 120 Intake and Assessment	3				3
SAB 125 Substance Abuse Case Management	2	2			3
SAB 210 Substance Abuse Counseling	2	2			3
SAB 230 Family Therapy	2	2			3
Total Credit Hours					**15**

Industrial Maintenance Technology (A502400)

Pending State Approval

The Industrial Maintenance Technology curriculum is designed to prepare or upgrade individuals to service, maintain, repair, or install equipment for a wide range of industries. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial equipment and physical facilities.

Students will learn technical skills in blueprint reading, electricity, hydraulics/pneumatics, machining, welding, and various maintenance procedures. Practical application in these industrial systems will be emphasized and additional advanced course work my be offered.

Upon completion of any of the various levels of this curriculum, graduates should gain the necessary practical skills and

related technical information to qualify for employment or advancement in the various areas of industrial maintenance technology.

Degree Awarded

The Associate in Applied Science Degree — Industrial Maintenance Technology is awarded by the College upon completion of this program.

For More Information

The Industrial Maintenance Technology program is in the Technical Careers Department. For more information, call the Program Director at 704-330-4452 or the Technical Careers Division office at 704-330-4445, weekdays from 8 a.m. – 5 p.m. Program Counselors can be reached by calling 704-330-6229 or 6059.,

Admissions

Completion of the High School Diploma or equivalent is required.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 112 DC/AC Electricity	3	6			5
ELC 125 Diagrams and Schematics	1	2			2
ELC 117 Motors and Control	2	6			4
ELC 118 National Electrical Code	1	2			2
ELC 128 Introduction to PLC	2	3			3
BPR 111 Blueprint Reading	1	2			2
PLU 111 Topics in Plumbing	1	3			3
WLD 110 Cutting Processes	1	3			2
WLD 112 Basic Welding Processes	1	3			2
AHR 120 HVACR Maintenance	1	3			2
HYD 110 Hydraulics/ Pneumatics I	2	3			3
MEC 111 Machine Processes 1	2	3			3
MNT 110 Intro to Maintenance	1	3			2
MNT 111 Maintenance Processes	1	3			2
MNT 150 Basic Building Maintenance	1	3			2
ISC 112 Industrial Safety	2				2
ELC 229 Applications Project	1	2			2
OR					
COE 112 Co-op Work Experience I	0	0	0	20	2
ELC 127 Software for Technicians	1	2			2

Students must select a minimum of 10 SHC from the following courses:

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 110 Telecom Circuits/ Devices	3	3			4
ELC 111 Intro to Electricity	2	2			3
ELC 113 Basic Wiring I	2	6			4
ELC 114 Basic Wiring II	2	6			4
ELC 115 Industrial Wiring	2	6			4
ELC 116 Telecom Cabling	1	2			3
ELC 121 Electrical Estimating	1	2			2
ELC 213 Instrumentation	3	2			4
ELC 229 Electrical Maintenance	2	3			3
ELC 228 LC Applications	2	6			4
AHR 110 Intro to Refrigeration	2	6			5
AHR 112 Heating Technology	2	4			3
AHR 113 Comfort Cooling	2	4			4
AHR 114 Heat Pump Technology	2	4			4
AHR 115 Refrigeration Systems	1	3			2
AHR 120 HVACR Maintenance	1	3			2
AHR 133 HVACR Servicing	2	6			4
AHR 160 Refrigeration Certification	1				1
MNT 220 Rigging & Moving	1	3			2
MNT 230 Pumps & Pumping Systems	1	3			2
MNT 240 Industrial Equip Troubleshoot	1	3			2
MEC 128 CNC Machining Processes	2	4			4
MEC 112 Machine Processes II	2	3			3
PLU 110 Modern Plumbing	4	15			9
PLU 130 Plumbing Systems	3	9			6
PLU 120 Plumbing Applications	4	15			9
HYD 121 Hydraulics/ Pneumatics II	1	3			2
HYD 210 Advanced Hydraulics	1	3			2
WLD 111 Oxy-Fuel Welding	1	3			2
WLD 115 S.M.A.W. (Stick) Plate	2	9			5
WLD 116 S.M.A.W. (Stick) Plate/Pipe	1	9			4
WLD 121 G.M.A.W. (Mig) F.C.A.W. Plate	2	6			4
WLD 122 G.M.A.W. (Mig) Plate/Pipe	1	6			3
WLD 132 G.T.A.W. (Tig) Plate/Pipe	1	6			3
WLD 131 G.T.A.W. (Tig) Plate	2	4			4
ISC 110 Workplace Safety	1				1
ISC 115 Construction Safety	2				2

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0			3
ENG 114 Professional Research and Reporting	3	0			3

Student must select one of the following:

	Class	Lab	Hours Clinical	Work Exper.	Credits
COM 110 Introduction to Communications	3	0			3
COM 231 Public Speaking OR	3	0			3
COM 233 Persuasive Speaking	3	0			3
MAT 115 Mathematical Models	2	2			3

(or student may choose a minimum of three (3) credit hours from the mathematics courses listed at the end of this section of the catalog)

	Class	Lab	Hours Clinical	Work Exper.	Credits
HUM 115 Critical Thinking	3	0			3
PSY 150 General Psychology	3	0			3

(or student may choose a minimum of three (3) credit hours from the list of approved Social/Behavioral Science courses listed at the end of this section of the catalog)

Total Credit Hours — **73**

Industrial Maintenance Technology Diploma (D502400)

The Industrial Maintenance Technology curriculum is designed to prepare or upgrade individuals to service, maintain, repair, or install equipment for a wide range of industries. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial equipment and physical facilities.

Students will learn technical skills in blueprint reading, electricity, hydraulics/pneumatics, machining, welding, and various maintenance procedures. Practical application in these industrial systems will be emphasized and additional advanced course work my be offered.

Upon completion of any of the various levels of this curriculum, graduates should gain the necessary practical skills and related technical information to qualify for employment or advancement in the various areas of industrial maintenance technology.

Degree Awarded

The Diploma in Industrial Maintenance is awarded by the College upon completion of this program.

For More Information

The Industrial Maintenance Technology program is in the Technical Careers Division. For more information, call the Program Chair at 704-330-4452 or the Technical Careers Department office at 704-330-4445, weekdays from 8 a.m. – 5 p.m. Program Counselors can be reached by calling 704-330-6229 or 6059.,

Admissions

Completion of the High School Diploma or equivalent is required.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 111 DC/AC Introduction to Electricity	2	2			4
ELC 125 Diagrams and Schematics	1	2			2
ELC 117 Motors and Control	2	6			4
ELC 128 Inroduction to PLC	2	3			3
BPR 111 Blueprint Reading	1	2			2
PLU 111 Topics in Plumbing	1	3			3
WLD 110 Cutting Processes	1	3			2
WLD 112 Basic Welding	1	3			2
AHR 120 HVACR Maintenance	1	3			2
HYD 110 Hydraulics/Pneumatics	2	3			3
MNT 110 Intro to Maintenance	1	3			2
MNT 111 Maintenance Processes	1	3			2
MNT 150 Basic Maintenance	1	3			2
ISC 112 Industrial Safety	2				2
ELC 127 Software for Technicians	1	2			2

General Education Core Requirements

	Class	Lab	Clinical	Exper.	Credits
*ENG 101 or a more advanced English course	3	0	0	0	3
Choose 3 credit hours from either					
MAT 101 or MAT 115	2	2	0	0	3
Total Credit Hours					**42**

*Any student who has completed a diploma level general education course must take the appropriate associate degree general education course if he or she chooses to pursue the higher credential.

Information Systems (A25260)

The Information Systems curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible program, designed to meet community information systems needs.

Course work includes computer systems terminology and operations, logic, operating systems, database, data communications/networking, and related business topics. Studies will provide experience for students to implement, support, and customize industry-standard information systems.

Graduates should qualify for a wide variety of computer-related, entry-level positions that provide opportunities for advancement with increasing experience and ongoing training. Duties may include systems maintenance and troubleshooting, support and training, and business applications design and implementation.

Degree Awarded

The Associate in Applied Science Degree in Information Systems is awarded by the College upon completion of this program.

For More Information

The Information Systems program is in the Computer and Office Information Systems Division. For more information, call the Program Counselor 704-330-6881, the Program Chair 704-330-5972, a Program Advisor 704-330-6984/5499/6893/6643, or the Division Office 704-330-6549.

Admissions

- A High School Diploma or equivalent is required.
- Placement tests determine placement in English (ENG) mathematics (MAT), and CIS 115.
- Students entering this program should take courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 115 Introduction to Programming and Logic	**2**	**2**			**3**
CIS 130 Survey of Operating Systems	**2**	**3**			**3**
CIS 110 Introduction to Computers	**2**	**2**			**3**
NET 110 Data Communication/ Networking	**2**	**2**			**3**
CIS 152 Database Concepts and Applications	2	2			3
CIS 116 Introduction to PC Application Development	2	3			3
CIS 219 Advanced PC Application Development	2	3			3
CIS 286 System Analysis and Design	3	0			3
ACC 120 Principles of Accounting 1	3	2			4
CIS 121 User Support and Software Evaluation	1	4			3
CIS 215 Hardware Installation/ Maintenance	2	3			3
CSC 139 Visual BASIC Programming	2	3			3
CIS 172 Introduction to the Internet	2	2			3

Networking. Select one:

	Class	Lab	Clinical	Work Exper.	Credits
CIS 174 Network Systems Manager I	2	2			3
CIS 175 Network Management I	2	2			2

Operating Systems. Select one:

CIS 147 Operating System – Windows	2	2			3
CIS 148 Operating Systems – Windows NT	2	2			3

Programming Language. Select one:

CSC 133 C Programming	2	3			3
CSC 134 C++ Programming	2	3			3

Other Major Electives. Select 6 credit hours:

ACC 150 Computerized General Ledger	1	2			2
COE 112 Co-op Work Experience I	0	0		20	2
BUS 110 Introduction to Business	3	0			3
CIS 154 Database Utilization	1	2			2
CIS 157 Database Programming I	2	2			3
CIS 163 Programming Interfaces Internet	2	2			3
NET 260 Internet Development and Support	3	0			3
CIS 218 Introduction to AI	3	0			3
CIS 289 Operation Project	2	2			3
CIS 245 Operating System - Multi-user	2	3			3
CIS 144 Operating System - DOS	2	2			3
CIS 153 Database Applications	2	2			3
CIS 193 Selected Topics in Information Systems	0-3	0-6			3
CSC 193 Selected Topics in Information Systems	1-3	0-6			3
CIS 196 Seminar in Information Systems	1-3	0-6			1
CSC 196 Seminar in Information Systems	0-1				0-3
CIS 169 Business Presentations	1	2			2
CSC 148 JAVA Programming	2	3			3
CSC 239 Advanced Visual BASIC	2	3			3
CSC 234 Advanced C++	2	3			3

General Education Core Requirements

ENG 111 Expository Writing	**3**	**0**			**3**
ENG 114 Professional Research and Reporting	3	0			3
COM 110 Introduction to Communication	3	0			3
Select a minimum of three (3) credit hours from the approved list of behavioral and social sciences courses listed at the end of this section of the catalog.	3	0			3
Select a minimum of three (3) credit hours from the approved list of humanities courses listed at the end of this section of the catalog.	3	0			3

Mathematics. Select one:

MAT 140 Survey of Mathematics	3	0			3
MAT 161 College Algebra	3	0			3
Total Credit Hours					**73**

Information Systems
Network Administration and Support Concentration (A2526D)

Network Administration and Support is a concentration under the curriculum title of Information Systems. This concentration prepares individuals for employment as computer network administrators, computer system support specialists, and related positions through study and applications in computer data communication systems, network principles, computer hardware, computer software, and operating systems.

Students will study network theory and applications. The primary emphasis will be solution of data communications and other computer-related problems through hands-on experience with modem networked computer systems. A heavy emphasis is placed on the study and management of local area networks. The concentration also includes programming, data management, and software installation and support, thus providing the student with a comprehensive computer system and application experience.

Graduates should qualify for employment in business, industry, and government organizations as network administrators, network support specialists, computer specialists, and general computer support technicians.

Degree Awarded

The Associate in Applied Science Degree in Information Systems /Network Administration and Support Concentration is awarded by the College upon completion of this program.

For More Information

The Information Systems with Network Administration and Support Concentration is in the Computer and Office Information Systems Division. For more information, call the Program Counselor 704-330-6881, the Program Chair 704-330-5498, a Program Advisor 704-330-6282, or the Division Office 704-330-6549.

Admissions

- A High School Diploma or equivalent is required.
- Placement tests determine placement in English (ENG) and mathematics (MAT), and CIS 115.
- Students entering this program should take courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

			Hours	Work	
	Class	Lab	Clinical	Exper.	Credits
CIS 115 Introduction to Programming and Logic	**2**	**2**			**3**
CIS 130 Survey of Operating Systems	**2**	**3**			**3**
CIS 110 Introduction to Computers	**2**	**2**			**3**
NET 110 Data Communication/ Networking	**2**	**2**			**3**
CIS 152 Database Concepts and Applications	2	2			3
ACC 120 Principles of Accounting I	3	2			4
CIS 173 Network Theory	2	2			3
CIS 174 Network System Manager I	2	2			3
CIS 175 Network Management I	2	2			3
CIS 274 Network Systems Manager II	2	2			3
CIS 275 Network Management II	2	2			3
NET 260 Internet Deveopment & Support	3	0			3
CIS 287 Network Support	2	2			3
CIS 215 Hardware Installation/ Maintenance	2	3			3

Major Electives (Select a Minimum of 12 Credits)

CIS 147 Operating System – Windows	2	2			3
CIS 172 Introduction to the Internet	2	2			3
COE 112 Co-op Work Experience I	0	0		20	2

	Class	Lab	Credits
CSC I33 C Programming	2	3	3
OR			
CSC I34 C++ Programming	2	3	3
CSC I39 Visual BASIC			
Programming	2	3	3
CSC 148 JAVA Programming	2	3	3
CIS 116 Introduction to PC			
Application Development	2	3	3
CIS 121 User Support and			
Software Evaluation	1	4	3
CIS 182 Printing on the Network	2	2	2
CIS 184 TCP/IP and NFS	2	2	2
CIS 277 Network Design &			
Implementation	2	2	2
CIS 193 Selected Topics in			
Information Systems	0-3	0-6	3
CSC 193 Selected Topics in			
Information Systems	0-3	0-6	3
CIS 196 Seminar in			
Information Systems	0-1	0-3	I
CSC 196 Seminar in			
Information Systems	0-1	0-3	1
CIS 2I6 Software Installation			
and Maintenance	I	2	2

Select one

	Class	Lab	Credits
CIS 245 Operating System -			
Multi-user	2	3	3
CIS I44 Operating System - DOS	2	2	3
CIS I48 Windows ™ NT	2	2	3

General Education Core Requirements

	Class	Lab	Credits
ENG 111 Expository Writing	**3**	**0**	**3**
ENG I14 Professional Research			
and Reporting	3	0	3
COM 110 Introduction to			
Communication	3	0	3
Select a minimum of three (3) credit hours			
from the approved list of behavioral and			
social sciences courses listed at the end			
of this section of the catalog.	3	0	3
Select a minimum of three (3) credit hours			
from the approved list of humanities			
courses listed at the end of this			
section of the catalog.)	3	0	3
Select one mathematics course:			
MAT I40 Survey of Mathematics	3	0	3
MAT 161 College Algebra	3	0	3
Total Credit Hours		**72**	

Computer Programming (A25130)

The Computer Programming curriculum is designed to prepare individuals for employment as computer programmers and related positions through study and applications in computer concepts, logic, programming procedures, languages, generators, operating systems, networking, data management, and business operations.

Students will solve business computer problems through programming techniques and procedures, using appropriate languages and software. The primary emphasis of the curriculum is hands-on training in programming and related computer areas that provides the ability to adapt as systems evolve.

Graduates should qualify for employment in business, industry, and government organizations as programmers, programmer trainees, programmer/analysts, software developers, computer operators, systems technicians, database specialists, computer specialists, software specialists, or information systems managers.

Degree Awarded

The Associate in Applied Science Degree in Computer Programming is awarded by the College upon completion of this program.

For More Information

The Computer Programming program is in the Computer and Office Information Systems Division. For more information, call the Program Counselor at 704 330-6881, the Program Chair 704-330-6879, a Program Advisor at 704 330-6239 / 6903 / 6460, or the Division Office at 704 330-6549.

Admissions

- A High School Diploma or equivalent is required.
- Placement tests determine placement in English (ENG) and mathematics (MAT) courses.
- Students entering this program should take courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 110 Introduction to					
Computers	**2**	**2**			**3**
CIS 115 Introduction to Programming					
and Logic	**2**	**2**			**3**
CIS 130 Survey of Operating					
Systems	**2**	**3**			**3**
CIS 135 Introduction to COBOL	**2**	**3**			**3**
CIS I52 Database Concepts and					
Applications	2	2			3
NET I10 Data Communication/					
Networking	2	2			3
ACC 120 Principles of Accounting I	3	2			4
CSC 235 Advanced COBOL	2	3			3
CSC 238 Advanced RPG	2	3			3
CIS 286 System Analysis and Design	3	0			3
CSC I38 Introduction to RPG	2	3			3
CSC 244 CICS	4	2			5
CIS 288 Systems Project	1	4			3
Operating System. Select 3 credits. (Up to					
3 additional credits may serve as					
Other Major Electives).					
CIS I49 Operating System - MVS	2	2			3
CIS 247 Operating System -					
DOS/VSE	2	3			3
CIS 244 Operating System - AS/400	2	3			3
Object-Oriented Programming. Select 3-4					
credits. (Additional credits may serve					
as Other Major Electives).					
CSC 134 C++ Programming	2	3			3
OR					
CSC 120 Computer Fundamentals I	3	2			4
CSC 139 Visual BASIC					
Programming	2	3			3
CSC I48 JAVA Programming	2	3			3
Other Major Electives. Select 6-7 credits:					
BUS 110 Introduction to Business	3	0			3
CIS 172 Introduction to the Internet	2	3			3
CIS 193 Selected Topics in					
Information Systems	0-3	0-6			3
CSC I96 Seminar in					
Information Systems	0-I	0-3			1
CIS 21I AS/400 Maintenance					
and Operations	2	3			3
CIS 228 Project Manager	1	2			2
CIS 289 Operations Project	2	2			3

	Class	Lab	Work Exper.	Credits
COE 112 Co-op Work Experience I	0	0	20	2
CSC 131 Assembly Programming	2	3		3
CSC 143 Object-Oriented Programming	2	3		3
CSC 234 Advanced C++ Programming	2	3		3
CSC 239 Advanced Visual BASIC	2	3		3
CSC144 AS/400 CL Programming	2	3		3
CSC193 Selected Topics in Information Systems	0-3	0-6		3
CIS 196 Seminar in Information Systems	0-1	0-3		1
OST 137 Office Software Applications	1	2		2
CSC 130 Computing Fundamentals II	3	2		4
CIS 174 Network System Administrator I	2	2		3
OR				
CIS 175 Network Management	2	2		3

General Education Core Requirements

	Class	Lab		Credits
ENG 111 Expository Writing	**3**	**0**		**3**
ENG 114 Professional Research and Reporting	3	0		3
COM 110 Introduction to Communication	3	0		3
Select a minimum of three (3) credit hours from the approved list of behavioral and social sciences courses listed at the end of this section of the catalog.	3	0		3
Select a minimum of three (3) credit hours from the approved list of humanities courses listed at the end of this catalog.	3	0		3
Select one				
MAT 140 Survey of Mathematics	3	0		3
MAT 161 College Algebra	3	0		3
Total Credit Hours				**72-74**

Information Systems Diploma (D25130) Computer Operations

The Information Systems curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible program, designed to meet community information systems needs.

The Computer Operations Diploma is a specialized area of Information Systems designed to prepare the individual for gainful employment as a mainframe and/or midrange computer operator.

Diploma Awarded

A Diploma (Computer Operations) in Information Systems is awarded by the college upon completion of this program.

Note

OST 131 Keyboarding is recommended for students who have not had a typing course.

For More Information

The Information Systems, Computer Operation Diploma program is in the Computer and Office Information Systems Division. For more information, call the Program Counselor at 704-330-6881, the Program Chair 704-330-6879, a Program Advisor at 704- 330-6457 or the Division Office at 704- 330-6549.

Admissions

- A High School Diploma or equivalent is required.
- Placement test determine placement in English (ENG) and mathematics (MAT) courses.
- Students entering this program should take the courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 115 Introduction to Programming and Logic	**2**	**2**			**3**
CIS 130 Survey of Operating Systems	**2**	**3**			**3**
CIS 110 Introduction to Computers	**2**	**2**			**3**
NET 110 Data Communication / Networking	**2**	**2**			**3**
CIS 247 Operating System – DOS/VSE	**2**	**3**			**3**
CIS 152 Database Concepts and Applications	2	2			3
ACC 120 Principles of Accounting I	3	2			4
CIS 149 Operating System - MVS	2	2			3
CSC 135 Introduction to COBOL	2	3			3
CSC 138 Introduction to RPG	2	3			3
CIS 289 Operation Project	2	2			3
Select One:					
CIS 244 Operating System - AS/400	2	3			3
CIS 211 AS/400 Maintenance and Operations	2	3			3
Other Major Elective. Select one:					
CSC 144 AS/400 CL Programming	2	3			3
CIS 172 Introduction to the Internet	2	3			3
CIS 173 Network Theory	2	2			3
CIS 174 Network System Manager I	2	2			3
COE 112 Co-op Work Experience I	0			20	2

General Education Core Requirements

	Class	Lab		Credits
Select one:				
ENG 111 Expository Writing	3	0		3
*ENG 101 Applied Communications I	3	0		3
Select one:				
MAT 140 Survey of Mathematics	3	0		3
*MAT 115 Mathematical Models	2	2		3
*MAT 101 Applied Math I	2	2		3
Total Credit Hours				**45-46**

*Any student who has completed a diploma level general education course must take the appropriate associate degree general education course if he or she chooses to pursue the higher credential.

Internet Certificates (C25260)

Specialization Certificates

The certificates listed below can be earned in the Information Systems (A25260) program.

For More Information

For more information, call the Program Counselor at 704-330-6881, the Program Chair 704-330-5972, or the Division Office at 704-330-6549.

Admissions

- A High School Diploma or equivalent is encouraged as the foundation of a career in this area.

• Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Internet Navigational Certificate (C25260-C1)

The Internet Navigational Certificate is designed to prepare the individual to explore the Internet using Navigational tools. This certificate will introduce the student to PC and PC software, basic networking terminology and structures, basic Internet terminology, browsers and the use of Netscape Navigator, internet email, basic HTML code, and creating a web page.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 110 Introduction to the Computer	2	2			3
CIS 172 Introduction to the Internet	2	3			3
CIS 193 Selected Topics in Information Systems	2	2			3
NET 110 Data Communication/ Networking	2	2			3
Total Certificate Credit Hours					**12**

Internet Technologies Certificate (C25260-C2)

The Internet Technologies Certificate is designed to prepare the individual to explore the Internet and/or Intranet using Navigational tools and to provide support in developing Internet applications. This certificate will introduce the student to PC and PC software, basic networking terminology and structures, basic Internet terminology, browssers and the use of Netscape Navigator; internet email, basic HTML code, and installing a web page. This certificate extends Internet skills to include: 1) Programming and publishing web pages using HTML and Microsoft FrontPage and 2) development and implementation of internet related tools and services on a web server.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 110 Introduction to the Computer	2	2			3
CIS 172 Introduction to the Internet	2	3			3
NET 110 Data Communications/ Networking	2	2			3
CIS 163 Programming Interfaces Internet	2	2			3
CSC 148 JAVA Programming	2	3			3
NET 260 Internet Development and Support	3	0			3
Total Certificate Credit Hours					**18**

Database Certificate (C25260)

Specialization Certificates

The certificate listed below can be earned in the Information Systems (A25260) program.

For More Information

For more information, call the Program Counselor at 704-330-6881, the Program Chair 704-330-5972, or the Division Office at 704-330-6549.

Admissions

• A High School Diploma or equivalent is encouraged as the foundation of a career in this area.
• Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Database Certificate (C25260-C3)

The Database Certificate is designed to prepare the individual to use databases more effectively as an end-user and to design, normalize, and program databases. This certificate will introduce the student to Personal Computer (PC) and Mainframe database software, four database models, database design tools, design and normalization criteria, and database languages such as Structured Query Language (SQL).

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 110 Introduction to the Computer	2	2			3
CIS 130 Survey of Operating Systems	2	3			3
CIS 152 Database Concepts & Applications	2	2			3
CIS 154 Database Utilization	1	2			2
CIS 153 Database Applications	2	2			3
CIS 157 Database Programming I	2	2			3
Total Certificate Credit Hours					**17**

Computer Programming Certificates (C25130)

Specialization Certificates

The certificates listed below can be earned in the Computer Programming (A25130) program.

For More Information

For more information, call the Program Counselor at 704-330-6881, the Program Chair 704-330-6879, or the Division Office at 704-330-6549.

Admissions

• A High School Diploma or equivalent is encouraged as the foundation of a career in this area.
• Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

COBOL Programming Certificate (C25130-C1)

The COBOL Programming Certificate is designed to prepare the individual for employment in the field of computer programming using the COBOL programming language. The students will study systems analysis, mainframe Job Control Language, and programming/database language concepts as well as a coding, testing, and debugging application programs.

Students will study structured programming language concepts, data storage techniques, file design and maintenance, database design and maintenance, mainframe JCL, and systems analysis and design.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CSC 135 COBOL Programming	**2**	**3**			**3**
CIS 115 Introduction to Programming and Logic	**2**	**2**			**3**
CIS 149 Operating System – MVS	**2**	**2**			**3**
OR					
CIS 247 Operating System – DOS/VSE	2	3			3
CSC 235 Advanced COBOL	2	3			3
CIS 152 Database Concepts & Applications	2	2			3

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 286 Systems Analysis and Design	3	0			3
Total Certificate Credit Hours					**18**

RPG Programming and AS/400 Operations Certificate (C25130-C2)

The RPG Programming and AS/400 Operations Certificate is designed to prepare the individual for employment in the field of computer programming using the RPG programming language in a AS/400 shop environment. The student will study systems analysis, AS/400 Control Language, and programming/database languages concepts as well as a coding, testing, and debugging application program.

Students will study structured programming language concepts, data storage techniques, file design and maintenance, database design and maintenance, AS/400 operations, AS/400 CL, and systems analysis and design.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CSC 138 Introduction to RPG	**2**	**3**			**3**
CIS 152 Database Concepts & Applications	**2**	**2**			**3**
CIS 211 AS/400 Maintenance and Operations	**2**	**3**			**3**
CSC 238 Advanced RPG	2	3			3
CSC 144 AS/400 CL Programming	2	3			3
CIS 286 Systems Analysis and Design	3	0			3
Total Certificate Credit Hours					**18**

Object-Oriented Programming Certificate (C25130-C3)

The Object-Oriented Programming Certificate is designed to prepare the individual for using object-oriented languages and object-oriented analysis and design in Computer Programming. Students study C++ Standard Template Library, techniques for storing and manipulating data internally and externally, and object-oriented analysis and design.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CSC 120 Computing Fundamentals I	**3**	**2**			**4**
AND					
CSC 130 Computing Fundamentals II	**3**	**2**			**4**
OR					
CSC 134 C++ Programming	**2**	**3**			**3**
AND					
CSC 234 Advanced C++	2	3			3
CSC 143 Object-Oriented Programming	2	3			3
CSC 148 Java Programming	2	3			3
CSC 193 Selected Topics in Information Systems	0-3	0-6			3
Total Certificate Credit Hours					**15-17**

Interior Design (A30220)

The Interior Design curriculum is designed to prepare students for a variety of job opportunities in the field of both residential and non-residential interior design. The focus of the studies is technical knowledge, professional practices, and aesthetic principles.

Curriculum content includes residential and non-residential interior design, architectural drafting, computer-aided design, and universal design. Also included are basic design, history of interiors and furnishings, color theory, products, business practices, graphic presentations, and general education courses.

Graduates should qualify for a variety of jobs including residential and commercial interior design, set design, showroom design, and sales positions for furniture, textiles and accessories, and all businesses dealing with interiors.

General Information

Increasingly, our interior living and working spaces are being developed for a more sophisticated society. The Interior Design program at CPCC prepares students to design the interior spaces of today and tomorrow using the best of today's technology.

Degree Awarded

The Associate in Applied Science Degree - Interior Design is awarded by the College upon completion of this program.

For More Information

For more information, contact a Program Counselor at 704-330-6302 or the Program chair 704- 330-6437, weekdays from 8:00 a.m. - 5:00 p.m. Interior Design is within the Engineering Technologies Division, 704- 330-6437.

Admissions

- A High School Diploma or equivalent is required. GED High School Equivalent and High School Diploma classes are available from CPCC.
- CPCC placement tests are required in English and mathematics. Advancement studies in mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Contact the Program chair before entering program.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
DES 125 Graphic Presentation I	**0**	**6**	**0**	**0**	**2**
DES 135 Prin & Elem of Design I	**2**	**4**	**0**	**0**	**4**
DES 210 Bus Prac/ Interior Design	2	0	0	0	2
DES 220 Intro to Interior Design	1	6	0	0	3
DES 225 Textiles/Fabrics	2	2	0	0	3
DES 230 Residential Design I	1	6	0	0	3
DES 235 Products	2	2	0	0	3
DES 240 Non-Residential Design I	1	6	0	0	3
ARC 111 Intro to Architecture	**1**	**6**	**0**	**0**	**3**
ARC 114 Architectural CAD (Auto CAD/MicroStation)	1	3	0	0	2
DES 255 Hist/Int & Furn I	3	0	0	0	3
ARC 120 Residential Interior Design	1	6	0	0	3
DES 231 Residential Design II	1	6	0	0	3
DES 241 Non Residential Design II	1	6	0	0	3
DES 275 Furniture Design & Const	2	2	0	0	3
DES 280 Codes & Standards/ Int Des	3	0	0	0	3
DES 245 Sales & Mkt/Int Design	2	0	0	0	2
CIS 111 Basic PC Literacy	1	2	0	0	2

Technical Electives
(To be selected from list below.)   6
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Technical Electives

	Class	Lab	Clinical	Work Exper.	Credits
DES 115 Color Theory	2	2	0	0	3
DES 126 Graphic Presentation II	0	6	0	0	2
DES 136 Prin & Elem of Design II	2	4	0	0	4
DES 193 Selected Topics in Interior Design	1-3	0-6	0	0	3
DES 250 Store Planning	2	3	0	0	3
DES 257 History of American Homes	3	0	0	0	3
DES 258 Hist Preserv/Restoration	3	2	0	0	4
DES 260 Materials Calc/Int Design	3	0	0	0	3
DES 285 Capstone/Interior Design	2	6	0	0	4
DES 298 Seminar in Interior Design	1-3	0-6	0	0	3
ARC 160 Residential Design	1	6	0	0	3
COE 112 Cooperative Work Experience I	0	0	0	20	2
COE 122 Cooperative Work Experience II	0	0	0	20	2

General Education Core Requirements

	Class	Lab	Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research & Reporting	3	0	0	0	3
MAT 115 Mathematical Models	2	2	0	0	3
ART 114 Art History Survey I	3	0	0	0	3
PSY 150 General Psychology	3	0	0	0	3
COM 233 Persuasive Speaking	3	0	0	0	3
					18
Total Credits					**75**

Interpreter Education (A55300)

The Interpreter Education curriculum prepares individuals to work as entry-level sign language interpreters who will provide communication access in interview and interactive settings. In addition, this curriculum provides in-service training for working interpreters who want to upgrade their skills.

Course work includes the acquisition of American Sign Language (ASL); grammar, structure, and socio-linguistic properties, cognitive processes associated with interpretation between ASL and English; the structure and character of the deaf community; and acquisition of consecutive and simultaneous interpreting skills.

Entry-level jobs for para-professional interpreters are available in educational systems or a variety of community settings. Individuals may choose from part-time, full-time, or self-employment/ free-lance positions, or apply language skills to other human service related areas.

Degree Awarded

The Associate in Applied Science Degree - Interpreter Education is awarded by the College upon completion of this program.

Program Accreditation

Interpreter Education Associate and Human Services Technology courses have been approved by the National Board for Certified Counselors (NBCC) for Professional Counselor (NCC) renewal credit.

For More Information

The Interpreter Education program is in the English Literature and Languages Division. For more information, call the Program chair at 704- 330-6829, weekdays from 8 a.m. - 5 p.m.

The Program Counselors can be reached by calling 704- 330-6468.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, reading and mathematics.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
COE 111 Co-op Work Experience				10	1
IPP 111 Introduction to Interpretation	2				2
IPP 112 Comparative Cultures	4				4
IPP 161 Consecutive Interpreting	2	6			5
IPP 150 Linguistics of ASL	2				2
IPP 152 ASL/English Translation	3				3
COE 115 Work Experience Seminar I	1				1
IPP 221 Simultaneous Interpreting I	2	6			5
IPP 153 Introduction to Discourse Analysis	1	4			3
IPP 130 Analytical Skills for Int	1	4			3
IPP 151 ASL Numbers & Fingerspell	1	2			1
IPP 240 Ethical Stnds & Practices	3				3
IPP 222 Simultaneous Interpret II	2	6			5
COE 125 Work Exp Seminar II	1				1
HSE 120 Interpersonal Relationships	3				3
ASL 111 Elementary ASL I	3				3
ASL 181 ASL Lab I		2			1
ASL 112 Elementary ASL II	3				3
ASL 182 ASL Lab II		2			1
COE 121 Co-op Work Experience II				10	1

General Education Core Requirements

	Class	Lab	Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3				3
ENG 114 Prof. Research & Reporting	3				3
COM 231 Public Speaking	3				3
MAT 140 Survey of Mathematics	3				3
COM 140 Intercultural Communication	3				3
CIS 111 Basic PC Literacy	1	2			2
Students must *select one*	3				3
PSY 150 General Psychology					
SOC 210 Introduction to Sociology					
SOC 213 Sociology of the Family					
SOC 220 Social Problems					
Total Credit Hours					**71**

Law Enforcement Training, Basic

See Basic Law Enforcement Training

Machining Technology (A50300)

The Machining Technology curriculum is designed to develop skills in the theory and safe use of hand tools, power machinery, computerized equipment and sophisticated precision inspection instruments.

Students will learn to interpret blueprints, set up manual and CNC machines, perform basic and advanced machining operations and make decisions to insure that work quality is maintained.

Employment opportunities for machining technicians exist in manufacturing industries, public institutions, governmental agencies and in a wide range of specialty machining job shops.

The Machining Technology Program at CPCC provides students the opportunity to expand their knowledge and skills in CNC programming and a broader knowledge in CNC Graphics Programming. All projects are performed on full-scale industrial equipment used in local industry.

Degree Awarded

The Associate in Applied Science Degree-Machining Technology will be awarded by the College upon completion of the program.

Note

Students who do not take program-related courses for two consecutive semesters must reenter the program under the Catalog in effect at the time of reentry.

For More Information

The Machining Technology Program is in the Engineering Technologies Division. For more information, contact the Program Counselor at 704- 330-6881 or the Machining Technology Program Chair at 704- 330-6608, weekdays from 8 a.m. to 5 p.m.

Admissions

- High School Diploma or equivalent is required.
- CPCC placement tests are required in English and mathematics. Advancement Studies mathematics and English courses are available for students to build skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MAC 111X Machining Technology I	1	6	0	0	3
MAC 111Y Machining Technology I	1	6	0	0	3
MAC 112X Machining Technology II	1	6	0	0	3
MAC 112Y Machining Technology II	1	6	0	0	3
MAC 113X Machining Technology III	1	6	0	0	3
MAC 113Y Machining Technology III	1	6	0	0	3
MAC 121 Introduction to CNC	2	0	0	0	2
MAC 122 CNC Turning	1	3	0	0	2
MAC 131 Blueprint Reading/ Machining 1	1	2	0	0	2
MAC 132 Blueprint Reading/ Machining II	1	2	0	0	2
MAC 114 Introduction to Metrology	2	0	0	0	2
MAC 151 Machining Calculations	1	2	0	0	2
MAC 152 Advanced Machining Calculations	1	2	0	0	2
MAC 124 CNC Milling	1	3	0	0	2
MAC 222 Advanced CNC Turning	1	3	0	0	2
MAC 224 Advanced CNC Milling	1	3	0	0	2
MAC 231 CNC Graphics Programming-Turning	1	4	0	0	3
MAC 232 CNC Graphics Programming-Milling	1	4	0	0	3
MEC 172 Introduction to Metallurgy	2	2	0	0	3
DFT 111 Technical Drafting 1	1	3	0	0	2
DFT 151 CAD I	2	3	0	0	3
Technical Electives					
(The following are suggested electives)	3	0	0	0	3
					55
DFT 121 Introduction to Geometric Dimensioning and Tolerancing	1	2	0	0	2
ISC 132 Manufacturing Quality Control	2	3	0	0	3
WLD 112 Basic Welding Process	1	3	0	0	2
COE 112 Cooperative Education I	0	0	0	20	2
COE 122 Cooperative Education II	0	0	0	20	2
MAC 192 Selected Topics in CNC Prog Machining	0-2	0-6	0	0	2
MAC 292 Selected Topics in CNC Oper. Machining	0-2	0-6	0	0	2

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research and Reporting	3	0	0	0	3
COM 110 Introduction to Communication	3	0	0	0	3
+MAT 115 Mathematical Models	2	2	0	0	3
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog	3	0	0	0	3
Students must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0	0	0	3
					18
Total Credit Hours					**73**

+ MAT 121 Algebra/Trigonometry may substitute for MAT 115.

Machining Technology Diploma (D50300)

The Machining Technology Diploma gives individuals the opportunity to gain entry level employment in the metal working industries. A basic knowledge of conventional machine tools, CNC programming and CNC operations is provided by hands-on activities on equipment commonly used in industry. Coursework will apply toward the Machining Technology AAS Degree program.

Degree Awarded

A Diploma in Machining Technology is awarded by the College upon completion of this program.

Note

Students who do not enroll in program-related courses for two consecutive semesters must reenter the program under the Catalog in effect at the time of reentry.

For More Information

The Machining Technology program is in the Engineering Technologies Division. For more information, contact the Program Counselor - 704- 330-6881 or the Machining Technology Program chair - 704- 330-6608, weekdays between 8 a.m. and 5 p.m.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as a foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MAC 111X Machining Technology I	1	6	0	0	3
MAC 111Y Machining Technology I	1	6	0	0	3
MAC 112X Machining Technology II	1	6	0	0	3
MAC 112Y Machining Technology II	1	6	0	0	3
MAC 113X Machining Technology III	1	6	0	0	3
MAC 113Y Machining Technology III	1	6	0	0	3
MAC 121 Introduction to CNC	2	0	0	0	2
MAC 122 CNC Turning	1	3	0	0	2
MAC 131 Blueprint Reading/ Machining I	1	2	0	0	2
MAC 132 Blueprint Reading/ Machining II	1	2	0	0	2
MAC 114 Introduction to Metrology	2	0	0	0	2
MAC 151 Machining Calculations	1	2	0	0	2
MAC 152 Advanced Machining Calculations	1	2	0	0	2
MAC 124 CNC Milling	1	3	0	0	2
MAC 222 Advanced CNC Turning	1	3	0	0	2
MAC 224 Advanced CNC Milling	1	3	0	0	2
MEC 172 Introduction to Metallurgy	2	2	0	0	3

General Education Requirements:

	Class	Lab	Hours Clinical	Work Exper.	Credits
+*ENG 101 Applied Communications	3	0	0	0	3
Students must choose 3 credit hours from the list of approved humanities courses or from the list of behavioral and social sciences listed at the end of this section of the catalog.	3	0	0	0	3
					6
Total Credit Hours					**47**

+ ENG 111 Expository Writing may be substituted for ENG 101
*Any student who has completed a diploma level general education course must take the appropriate associate degree general education course if he or she chooses to pursue the higher credential.

Machining Technology Certificates

Specialization Certificate

CNC Programming and Operations Certificate (C50300-C1)

This Certificate provides study in CNC programming and machining operations. Coursework includes manual programming, set-up and operation, and provides in-depth study in both 2-D and 3-D Graphics programming. Coursework will apply toward the Machining Technology AAS degree program.

Certificate Awarded

A Certificate is awarded in CNC Programming and Operations upon completion of this program

For More Information

The Machining Technology Program is in the Engineering Technologies Division. For more information, contact the Pro-gram Counselor at 704- 330-6881 or the Machining Technology Program Chair at 704- 330-6608, weekdays from 8 a.m. to 5 p.m.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as a foundation of a career in this area.
- Individuals entering this certificate program should have a basic knowledge of manual machining and/or minimum experience with CNC machine tools.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MAC 121 Introduction to CNC	2	0	0	0	2
MAC 122 CNC Turning	1	3	0	0	2
MAC 124 CNC Milling	1	3	0	0	2
MAC 222 Advanced CNC Turning	1	3	0	0	2
MAC 224 Advanced CNC Milling	1	3	0	0	2
MAC 231 CNC Graphics Prog -Turning	1	4	0	0	3
MAC 232 CNC Graphics Prog-Milling	1	4	0	0	3
Total Credit Hours					**16**

Manufacturing Engineering Technology (A40300)

The Manufacturing Engineering Technology curriculum prepares individuals for employment in the fields of manufacturing technology. The curriculum emphasizes the theory and training required to effectively augment manufacturing engineers in industry.

Courses include a background in mechanical and related theory and the use of manufacturing and analytical equipment. Industrial standards such as EPA, OSHA, GD&T, and ISO are discussed. Computer usage for process control and effective communication skills is emphasized.

Graduates of this curriculum qualify for positions as engineering technicians. Some of the responsibilities include drafting, process specification, tooling selection, automation programming, project facilitation, and supervision. Certification is available through organizations such as ASQC, SME, and NICET.

Degree Awarded

The Associate in Applied Science Degree - Manufacturing Engineering Technology is awarded by the College upon completion of this program.

Program Accreditation

The Manufacturing Engineering Technology program at CPCC is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology

Note

The Manufacturing Engineering Technology curriculum at Central Piedmont Community College is a comprehensive program featuring extensive hands-on CAD/CAM instruction in practical application of both fundamental and highly specialized manufacturing engineering technology principles. Students advance from basic courses to specialized manufacturing, industrial, and mechanical engineering technology courses that provide concentrated study in the practical application of

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state-of-the-art technological knowledge and skills needed in Robotics/Automation and CAD/CAM.

Completion of this program requires that students use college-level algebra, trigonometry, and physics in applying scientific principles to technological problems.

For More Information

The Manufacturing Engineering Technology program is in the Engineering Technologies Division. For more information, call the Program Counselor - 704- 330-6881 or the Manufacturing Engineering Technology Program chair - 704- - 330-6553, weekdays, 8 a.m. to 5 p.m.

Admissions

- A High School Diploma or equivalent is required. High school students preparing for an engineering technology program should complete courses in algebra, geometry, and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy, and science.
- Placement tests in English and mathematics determine the entry-level courses that match individual needs. Advancement Studies mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ELC 111E Introduction to Electricity	2	2	0	0	3
ISC 112 Industrial Safety	2	0	0	0	2
ISC 132 Manufacturing Quality Control	2	3	0	0	3
MEC 111X Machine Processes1 (Conventional)	1	2	0	0	1.7
MEC 111Y Machine Processes (CNC)	1	1	0	0	1.3
MEC 161 Manufacturing Processes	3	0	0	0	3
MEC 180 Engineering Materials	2	3	0	0	3
MEC 251 Statics	2	2			3
MEC 252 Strength of Materials	2	2			3
MEC 265 Fluid Mechanics	2	2	0	0	3
DFT 111 Technical Drafting 1	1	3	0	0	2
DFT 121 Introduction to G. D. & T.	1	2	0	0	2
DFT 151 CAD I	2	3	0	0	3
ISC 212 Metrology	1	2	0	0	2
MAT 121 Algebra/Trigonometry I	2	2	0	0	3
MAT 122 Algebra/Trigonometry II	2	2	0	0	3
MAT 223 Applied Calculus	2	2	0	0	3
PHY 131 Physics-Mechanics	3	2	0	0	4
PHY 132 Physics-Elec & Magnetism	3	2	0	0	4
ISC 211 Production Planning	2	2	0	0	3
ATR 112 Intro. to Automation	2	3	0	0	3
Technical Elective (3 credit hours to be chosen from the following)	0	0	0	0	2
CIS 111 Basic PC Literacy	1	2	0	0	2
COE 111 Co-Op Work Experience 1	0	0	0	10	1
COE 112 Co-Op Work Experience I	0	0	0	20	2
COE 121 Co-Op Work Experience II	0	0	0	10	1
COE 122 Co-Op Work Experience II	0	0	0	20	2
CSC 133 C Programming	2	2	0	0	3
CSC 134 C++ Programming	2	2	0	0	3
CSC 137 Pascal Programming	2	2	0	0	3
CSC 139 Visual Basic Programming	2	2	0	0	3
DFT 152 CAD 2	2	2	0	0	3
ISC 292 Special Topics in Mfg Engineering Tech	1	2	0	0	2
ISC 293 Selcted Topics in Mfg. Egr. Tech.	2	2	0	0	3
MEC 267 Thermal Systems	2	2	0	0	3
MEC 275 Engineering Mechanisms	2	2	0	0	3
MEC 292 Special Topics in Mech. Engineering Tech.	1	2	0	0	2
MEC 293 Selected Topics in Mfg. Egr. Tech.	2	2	0	0	3
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General Education Core Requirements:

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research and Reporting	3	0	0	0	3
COM 110 Introduction to Communication	3	0	0	0	3
Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3	0	0	0	3
Students must choose a minimum of 3 credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0	0	0	3
					15
Total Credit Hours					**76**

Mechanical Drafting Technology Diploma (D50340)

The Mechanical Drafting Technology curriculum prepares technicians to produce drawings of mechanical parts, components of mechanical systems, and mechanisms. CAD and the importance of technically correct drawings and designs based on current standards are emphasized.

Course work includes mechanical drafting, CAD, and proper drawing documentation. Concepts such as machine shop processes, basic materials, and physical sciences as they relate to the design process are also included. The use of proper dimensioning and tolerance techniques is stressed.

Graduates should qualify for employment in mechanical areas such as manufacturing, fabrication, research and development, and service industries.

Diploma Awarded

A Diploma in Mechanical Drafting Technology is awarded by the College upon completion of this program.

Students may apply appropriate courses toward the Mechanical or Manufacturing Engineering Technology programs.

Note

The Mechanical Drafting Technology program at CPCC is a comprehensive Computer Aided Drafting (CAD) curriculum that emphasizes CAD throughout the program from basic part drawings to complete detailing and assembly and working drawings.

For More Information

The Mechanical Drafting Technology program is in the Engineering Technologies Division. For more information, call

the Program Counselor - 704- 330-6881 or the Program chair - 704- - 330-6553, weekdays, 8 a.m. to 5 p.m.

Admissions

- A High School Diploma or equivalent is required. Skills and proficiencies should be developed in writing, computer literacy, and science.
- Placement tests in English and mathematics determine the entry-level courses that match individual needs. Advancement Studies mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
DFT 111 Technical Drafting 1	1	3	0	0	2
DFT 112 Technical Drafting 2	1	3	0	0	2
DFT 151 CAD 1	2	3	0	0	3
DFT 152 CAD 2	2	3	0	0	3
DDF 221 Design Drafting Project	0	4	0	0	2
DFT 121 Intro to G. D. & T.	1	2	0	0	2
ISC 212 Metrology	1	2	0	0	2
MEC 111X Machine Processes I (Conventional)	1	2			1.7
MEC 111Y Machine Processes I (CNC)	1	1			1.3
MEC 161 Manufacturing Processes 1	3	0	0	0	3
PHY 110 Conceptual Physics	3	0	0	0	3
PHY 110A Conceptual Physics Lab	0	2	0	0	1
MEC 172 Introduction to Metallurgy	2	2	0	0	3
CIS 111 Basic PC Literacy	1	2	0	0	2

Technical Electives — 3

(Select 3 hours from the following courses) — 34

	Class	Lab	Hours Clinical	Work Exper.	Credits
COE 111 Co-op Work Experience I	0	0	0	10	1
COE 112 Co-op Work Experience I	0	0	0	20	2
COE 121 Co-op Work Experience 2	0	0	0	10	1
COE 122 Co-op Work Experience 2	0	0	0	20	2
ISC 112 Industrial Safety	2	0	0	0	2
ISC 293 Selected Topics in Mfg. Egr. Tech.	2	2	0	0	3
ATR 112 Introduction to Automation	2	3	0	0	3
ISC 132 Manufacturing Quality Control	2	3	0	0	3
ISC 292 Special Topics in Manufacturing Engineering Technology	1	2	0	0	2
MEC 265 Fluid Mechanics	2	2	0	0	3
MEC 292 Special Topics in Mechanical Engineering Technology	1	2	0	0	2
MEC 293 Special Topics in Mechanical Engineering Technology	2	2	0	0	3

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0	0	0	3
MAT 115 Mathematical Models	3	0	0	0	3
					6

Total Credit Hours — **40**

Mechanical Engineering Technology (A40320)

The Mechanical Engineering Technology curriculum prepares graduates for employment as mechanical technicians. Typical assignments would include assisting in the design, development, testing and repair of mechanical equipment. Emphasis is placed on the integration of theory and mechanical principles.

Coursework includes applied mechanics, manufacturing methods and processes, computer usage, computer-aided drafting, mathematics, physics, and oral and written communications. The courses will stress critical thinking, planning, and problem solving.

Graduates of the curriculum will find employment opportunities in the diversified branches of the mechanical field. Mechanical engineering technicians are employed in many types of manufacturing, fabrication, research and development, and service industries.

Degree Awarded

The Associate in Applied Science Degree - Mechanical Engineering Technology is awarded by the College upon completion of this program.

Program Accreditation

The Mechanical Engineering Technology Program at CPCC is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Note

The Mechanical Engineering Technology curriculum at Central Piedmont Community College features extensive use of CAD/CAM systems in the practical applications of both fundamental and highly specialized mechanical engineering technology principles. Students advance from basic courses to specialized mechanical engineering technology courses that furnish concentrated study in the practical application of state-of-the-art technological knowledge and skills needed in today's high technology industry.

Completion of the program requires that students use college-level algebra, trigonometry, and physics in the application of scientific principles to technical problems.

For More Information

The Mechanical Engineering Technology Program is in the Engineering Technologies Division. For more information, call the Program Counselor at 704- 330-6881 or the Program Chair at 704- 330-6553, weekdays from 8 a.m. to 5 p.m.

Admissions

- A High School Diploma or equivalent is required. High schools students preparing for an engineering technology program should complete courses in algebra, geometry, and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy, and science.
- Placement tests in English and mathematics determine the entry-level courses that match individual needs. Advancement Studies English and mathematics courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
DFT 111 Technical Drafting	1	3	0	0	2
DFT 151 CAD I	2	3	0	0	3
PHY 131 Physics - Mechanics	3	2	0	0	4
DFT 121 Introduction to G.D. & T	1	2	0	0	2
DFT 152 CAD 2	2	3	0	0	3
ISC 212 Metrology	1	2	0	0	2
MEC 161 Manufacturing Processes I	3	0	0	0	3
MEC 275 Engineering Mechanisms	2	2	0	0	3
MEC 180 Engineering Materials	2	3	0	0	3
MEC 265 Fluid Mechanics	2	2	0	0	3
MAT 121 Algebra/Trigonometry I	2	2	0	0	3
MAT 122 Algebra/Trigonometry II	2	2	0	0	3
MAT 223 Applied Calculus	2	2	0	0	3
MEC 111X Machine Processes 1 (Conventional)	1	2	0	0	1.7
MEC 111Y Machine Processes 1 (CNC)	1	1	0	0	1.3
MEC 251 Statics	2	2	0	0	3
MEC 252 Strength of Materials	2	2	0	0	3
MEC 267 Thermal Systems	2	2	0	0	3
MEC 270 Machine Design	3	3	0	0	4
PHY 132 Physics - Electricity and Magnetism	3	2	0	0	4

Technical Electives (3 credit hours to be selected from the following courses)

					3
					60
COE 111 Co-op Work Experience I	0	0	0	10	1
COE 112 Co-op Work Experience I	0	0	0	20	2
COE 121 Co-op Work Experience 2	0	0	0	10	1
COE 122 Co-op Work Experience 2	0	0	0	20	2
ISC 112 Industrial Safety	2	0	0	0	2
CIS 111 Basic PC Literacy	1	2	0	0	2
ISC 292 Special Topics in Manufacturing Engineering Technology	1	2	0	0	2
MEC 292 Special Topics in Mechanical Engineering Technology	1	2	0	0	3
MEC 293 Special Topics in Mechanical Engineering Technology	2	2	0	0	3

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0	0	0	3
ENG 114 Professional Research and Reporting	3	0	0	0	3
COM 110 Introduction to Communication	3	0	0	0	3

Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog:

	3	0	0	0	3

Students must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.

	3	0	0	0	3
					15
Total Credit Hours					**75**

Medical Assisting (A45400)

The Medical Assisting curriculum prepares multi-skilled health care professionals qualified to perform administrative, clinical, and laboratory procedures.

Course work includes instruction in scheduling appointments, coding and processing insurance accounts, billing, collections, medical transcription, computer operations; assisting with examinations/treatments, performing routine laboratory procedures, electrocardiography, supervised medication administration; and ethical/legal issues associated with patient care.

Graduates of CAAHEP accredited medical assisting programs may be eligible to sit for the American Association of Medical Assistants' Certification Examination to become Certified Medical Assistants. Employment opportunities include physicians' offices, health maintenance organizations, health departments, and hospitals.

Advanced credits can be awarded toward completion of requirements for an Associate of Applied Science Degree in Medical Assisting. Individuals desiring a career in Medical Assisting should, if possible, take biology, mathematics, keyboarding, and computer courses prior to entering the program. Students are admitted to the Medical Assisting program Fall and Spring semesters.

Degree Awarded

A Degree in Medical Assisting is awarded by the college upon completion of the degree requirements. Graduates of this CAAHEP Accredited program may apply to take the certification examination administered by the Certifying Board of the American Association of Medical Assistants.

Note

ACA 118 College Study Skills is highly recommended before or with entrance in the Medical Assisting program.

Progression in this program is dependent on satisfying course prerequisites, corequisites, and maintaining a grade of C or better for all courses in the curriculum.

Students must have current CPR and First Aid Certification prior to the externship (MED 260).

In addition to tuition, lab fees, and textbooks, this program has additional costs that include uniforms, lab coats, personal protective equipment, physical examination, application fees for sitting for the Certification Exam, and a CPCC Medical Assisting pin.

For More Information

The Medical Assisting Program is in the Health Sciences Division. For more information, call the Health Sciences Division at 704- 330-6725, weekdays from 8 a.m. - 5 p.m. Program counselors can be reached by calling 704- 330-6500 or 6468.

Admissions

- Complete a CPCC application.
- Submit high school transcripts as well as any college transcripts (if applicable).
- Take required placement tests.
- Attend Health Sciences Counselor orientation.
- Complete any required Advancement Studies classes with a C or better.
- Students must have proficiency to key at an acceptable speed and accurate level using the touch system. A student must demonstrate basic computer competencies through coursework or testing. The Division Director of Computer Office and Information Systems will determine equivalent

competencies. The above must be satisfied by the end of the student's first semester.
- Present evidence of good physical and mental health.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MED 110 Orientation to Medical Assisting	1	0	0		1
MED 112 Orientation to Clinic Setting	0	0	3		1
MED 118 Medical Law and Ethics	2	0	0		2
MED 121 Medical Terminology I	3	0	0		3
MED 122 Medical Terminology II	3	0	0		3
MED 130 Administrative Office Procedures I	1	2	0		2
MED 131 Administrative Office Procedures II	1	2	0		2
MED 134 Medical Transcription	2	2	0		3
MED 138 Infection/Hazard Control	2	0	0		2
MED 140 Exam Room Procedure I	3	4	0		5
MED 150 Laboratory Procedure I	3	4	0		5
MED 260 Medical Clinical Externship	0	0	15		5
MED 116 Introduction to Anatomy and Physiology	3	2	0		4
MED 114 Professional Interaction in Health Care	1	0	0		1
MED 276 Patient Education	1	2	0		2
MED 262 Clinical Perspectives	1	0	0		1

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0	0		3
MAT 115 Mathematical Models	2	2	0		3
Total Credit Hours					**48**

After completion of the diploma program, requirements for A.A.S. Degree program is as follows:

	Class	Lab	Hours Clinical	Work Exper.	Credits
MED 270 Symptomatology	2	2	0		3
MED 272 Drug Therapy	3	0	0		3
MED 274 Diet Therapy/Nutrition OR	3	0	0		3
MED 232 Medical Insurance Coding	1	3	0		2
BUS 137 Principles of Management OR					
HIT 218 Management OR					
BUS 135 Principles of Supervision	3	0	0		3
Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3	0	0		3
Students must choose a minimum of 3 credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog:	3	0	0		3
ENG 114 Professional Research & Reporting	3	0	0		3
COM 231 Public Speaking OR					
COM 110 Introduction to Communication OR					
COM 120 Interpersonal Communication	3	0	0		3
Total Credit Hours					**71-72**

Medical Assisting (D45400) Diploma

The Medical Assisting curriculum prepares multi-skilled health care professionals qualified to perform administrative, clinical, and laboratory procedures.

Course work includes instruction in scheduling appointments, coding and processing insurance accounts, billing, collections, medical transcription, computer operations; assisting with examinations/treatments, performing routine laboratory procedures, electrocardiography, supervised medication administration; and ethical/legal issues associated with patient care.

Graduates of CAAHEP accredited medical assisting programs may be eligible to sit for the American Association of Medical Assistants' Certification Examination to become Certified Medical Assistants. Employment opportunities include physicians' offices, health maintenance organizations, health departments, and hospitals.

Advanced credits can be awarded toward completion of requirements for an Associate of Applied Science Degree in Medical Assisting. Individuals desiring a career in Medical Assisting should, if possible, take biology, mathematics, keyboarding, and computer courses prior to entering the program. Students are admitted to the Medical Assisting program Fall and Spring semesters.

Diploma Awarded

A Diploma in Medical Assisting is awarded by the college upon completion of the diploma requirements. Graduates of this CAAHEP Accredited program may apply to take the certification examination administered by the Certifying Board of the American Association of Medical Assistants. Credits from this program can be applied toward requirements for the Associate of Applied Science Degree in Medical Assisting.

Note

ACA 118 College Study Skills is highly recommended before or with entrance in the Medical Assisting program.

Progression in this program is dependent on satisfying course prerequisites, corequisites, and maintaining a grade of C or better for all courses in the curriculum.

Students must have current CPR and First Aid Certification prior to the externship (MED 260).

In addition to tuition, lab fees, and textbooks, this program has additional costs that include uniforms, lab coats, personal protective equipment, physical examination, application fees for sitting for the Certification Exam, and a CPCC Medical Assisting pin.

For More Information

The Medical Assisting Program is in the Health Sciences Division. For more information, call the Health Sciences Division at 704- 330-6725, weekdays from 8 a.m. - 5 p.m. Program counselors can be reached by calling 704- 330-6500 or 6468.

Admissions

- Complete a CPCC application.
- Submit high school transcripts as well as any college transcripts (if applicable).
- Take required placement tests.
- Attend Health Sciences Counselor orientation.
- Complete any required Advancement Studies classes with a C or better.
- Students must have proficiency to key at an acceptable speed and accurate level using the touch system. A student must demonstrate basic computer competencies through coursework or testing. The Division Director of Computer Office and Information Systems will determine equivalent

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competencies. The above must be satisfied by the end of the student's first semester.
- Present evidence of good physical and mental health.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MED 110 Orientation to Medical Assisting	1	0	0		1
MED 112 Orientation to Clinic Setting	0	0	3		1
MED 118 Medical Law and Ethics	2	0	0		2
MED 121 Medical Terminology I	3	0	0		3
MED 122 Medical Terminology II	3	0	0		3
MED 130 Administrative Office Procedures I	1	2	0		2
MED 131 Administrative Office Procedures II	1	2	0		2
MED 134 Medical Transcription	2	2	0		3
MED 138 Infection/Hazard Control	2	0	0		2
MED 140 Exam Room Procedure I	3	4	0		5
MED 150 Laboratory Procedure I	3	4	0		5
MED 260 Medical Clinical Externship	0	0	15		5
MED 116 Introduction to Anatomy and Physiology	3	2	0		4
MED 114 Professional Interaction in Health Care	1	0	0		1
MED 276 Patient Education	1	2	0		2
MED 262 Clinical Perspectives	1	0	0		1

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0	0		3
MAT 115 Mathematical Models	2	2	0		3
Total Credit Hours					**48**

Medical Laboratory Technology (A45420)

The Medical Laboratory Technology curriculum prepares individuals to perform clinical laboratory procedures in chemistry, hematology, microbiology, and immunohematology that may be used in the maintenance of health and diagnosis/treatment of disease.

Course work emphasizes mathematical and scientific concepts related to specimen collection, laboratory testing and procedures, quality assurance, and reporting/recording and interpreting findings involving tissues, blood, and body fluids.

Graduates may be eligible to take examinations given by the Board of Registry of Medical Technologists of the American Society of Clinical Pathologists or the National Certifying Agency. Employment opportunities include laboratories in hospitals, medical offices, industry, and research facilities.

Degree Awarded

The Associate in Applied Science Degree - Medical Laboratory Technology is awarded by the College upon completion of this program.

Note

In addition to tuition and textbooks, costs of this program include the following: uniforms, fluid-resistant lab coat, safety glasses/goggles, face shield, a physical examination including immunizations such as tetanus toxoid, Hepatitis B vaccination,

TB test, blood test (i.e. VDRL, Rubella titer, Rubeola titer, etc.) and student membership in a professional organization.

The student must provide a certificate of health and accident insurance.

In order to progress in this program, students must earn a C or better in all curriculum courses.

For More Information

The Medical Laboratory Technology program is in the Health Sciences Division. For more information, call the Health Sciences Division at 704- 330-6725, weekdays from 8 a.m. -5 p.m. Program Counselors can be reached by calling 704- 330-6500 or 6468.

Admissions

- Complete a CPCC application.
- Submit high school transcripts as well as any college transcripts.
- Take required placement tests.
- Attend Health Sciences Counselor orientation.
- Complete any required Advancement Studies classes with a C or better.
- Applicants must also present evidence of good physical and mental health.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
MLT 110 Introduction to MLT	2	3	0		3
MLT 111 Urinalysis and Body Fluids	1	3	0		2
MLT 120 Hematology/Hemostasis I	3	3	0		4
MLT 220 Hematology/Hemostasis II	2	3	0		3
MLT 125 Immunohematology I	4	3	0		5
MLT 130 Clinical Chemistry	3	3	0		4
MLT 230 Clinical Chemistry II	2	3	0		3
MLT 140 Introduction to Microbiology	2	3	0		3
MLT 240 Special Clinical Microbiology	2	3	0		3
MLT 216 Professional Issues	0	2	0		1
MLT 251 MLT Practicum I	0	0	3		1
MLT 267 MLT Practicum II	0	0	24		8
MLT 277 MLT Practicum III	0	0	24		8
BIO 163 Basic Anatomy and Physiology	4	2	0		5
CHM 130 General, Organic, and Biochemistry	3	0	0		3
CHM 130A General, Organic, and Biochemistry Lab	0	2	0		1

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0	0		3
ENG 114 Professional Research and Reporting	3	0	0		3
COM 110 Introduction to Communications	3	0	0		3
MAT 115 Mathematical Models OR					
MAT 140 Survey of Mathematics OR					
MAT 161 College Algebra	3	0	0		3
PSY 150 General Psychology	3	0	0		3
Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at the end of this section of the catalog.	3	0	0	0	3
Total Credit Hours					**75**

NOTE: By the end of the first year of acceptance into the Medical Laboratory Technology Program the student must demonstrate basic computer competencies through other coursework or testing. The Division Head of Computer and Office Information Systems will determine equivalent competency.

Nursing, Associate Degree (A45120)

The Associate Degree Nursing curriculum provides individuals with the knowledge and skills necessary to provide nursing care to clients and groups of clients throughout the lifespan in a variety of settings.

Courses will include content related to the nurse's role as provider of nursing care, as manager of care, as member of the discipline of nursing, and as a member of the interdisciplinary team.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN) which is required for practice as a Registered Nurse. Employment opportunities include hospitals, long term care facilities, clinics, physicians' offices, industry, and community agencies.

Degree Awarded

The Associate in Applied Science Degree - Nursing is awarded by the College upon completion of this program.

Note

In addition to tuition and textbooks, costs of this program include the following: uniforms, lab coat, stethoscope, a physical examination including immunizations such as tetanus toxoid, Hepatitis B vaccinations, TB test, blood test (i.e., VDRL, Rubella titer, etc.), CPR certification and annual recertification, fees for application for licensure for NC State Board of Nursing & National Council Licensure Examination, and a fee for the nursing pin. The student must provide a certificate of health and accident insurance.

In order to progress in this program, students must earn a C or better in all curriculum courses.

For More Information

The Associate Degree Nursing program is in the Nursing and Human Services Division. For more information, call the Nursing and Human Services Division at 704- 330-6496, weekdays from 8 a.m.-5 p.m. The Program Chair can be reached at 704-330-6228..

Admissions

- Complete a CPCC application.
- Pick up copy of ADN Admissions Info
- Submit high school transcripts and any college transcripts.
- Take required placement tests.
- Attend Health Sciences / Advancement Studies orientation.
- Meet with counselors.
- Complete at least high school level chemistry with a C or better within the last 10 years.
- Chemistry must be completed with a grade of C or better prior to entering the program. (Chemistry and BIO 168 must have been completed within the last 10 years.)
- Applicants must also present evidence of good physical and mental health.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
NUR 115 Fundamentals of Nursing	2	3	6		5
NUR 133 Nursing Assessment	2	3			3
NUR 125 Maternal-Child Nursing	5	3	6		8
NUR 185 Mental Health Nursing	3	0	6		5
NUR 135 Adult Nursing I	5	3	9		9
NUR 235 Adult Nursing II	4	3	15		10
NUR 255 Professional Issues	3	0	0		3
BIO 168 Anatomy and Physiology I	3	4	0		4
BIO 169 Anatomy and Physiology II	3	4	0		4
BIO 275 Microbiology	3	4	0		4
Elective	3	4	0		3

(No PED course accepted for elective.)

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0	0		3
ENG 113 Literature Based Research	3	0	0		3
COM 231 Public Speaking					
OR					
COM 233 Persuasive Speaking	3	0	0		3
MAT 140 Survey of Mathematics	3	0	0		3
PSY 150 General Psychology	3	0	0		3

Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at the end of this section of the catalog.

	Class	Lab	Hours Clinical	Work Exper.	Credits
	3	0	0	0	3
Total Credit Hours					**76**

NOTE: By the end of the first semester of acceptance into the Associate Degree Nursing Program the student must demonstrate basic computer competencies through other coursework or testing. The Division Director of Computer and Office Information Systems will determine equivalent competency.

Office Systems Technology (A25360)

The Office Systems Technology curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace.

Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communication, analysis and coordination of office duties and systems, and other support topics. Emphasis is placed on non-technical as well as technical skills.

Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor to middle management.

Degree Awarded

The Associate in Applied Science Degree - Office Systems Technology is awarded by the College upon completion of this program.

For More Information

The Office Systems Technology program is in the Computer and Office Information Systems Division. For more information, call the Program Counselor at 704-330-6550, Program Advisors at 704-330-6792 / 6898 or the Division Office 704-330-6549.

Admissions

- A High School Diploma or equivalent is required.
- Placement tests determine the placement in English (ENG) and mathematics (MAT) courses.
- Students entering the program should take the courses in bold print first if at all possible.

• Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
OST 134 Text Entry and Formatting	3	2			4
OST 136 Word Processing	1	2			2
OST 164 Text Editing Applications	3	0			3
OST 289 Office Systems Management	2	2			3
OST 236 Advanced Word Processing	2	2			3
OST 137 Office Software Applications	1	2			2
OST 135 Advanced Text Entry & Formatting	3	2			4
CIS 112 Windows	**1**	**2**			**2**
CIS 120 Spreadsheets	2	2			3
CIS 154 Database Utilization	1	2			2
OST 233 Office Publications Design	2	2			3
OST 223 Machine Transcription I	1	2			2
OST 220 Notetaking	**3**	**0**			**3**
OST 184 Records Management	**1**	**2**			**2**
OST 131 Keyboarding	**1**	**2**			**2**
CIS 111 Basic PC Literacy	**1**	**2**			**2**
ACC 110 Ten-Key Calculators	**0**	**2**			**1**

Accounting. *Students must select one:*

	Class	Lab			Credits
ACC 115 College Accounting	3	2			4
ACC 120 Principles of Accounting I	3	2			4

Business. *Students must select 6 credits:*

	Class	Lab			Credits
BUS 110 Introduction to Business	3	0			3
BUS 115 Business Law I	3	0			3
BUS 135 Principles of Supervision	3	0			3
BUS 137 Principles of Management	3	0			3
BUS 255 Org. Behavior in Business	3	0			3
BUS 260 Business Communications	3	0			3

Other Major Electives *Students must select one:*

	Class	Lab		Work Exper.	Credits
COE 112 Co-op Work Experience I	0	0		20	2
COE 122 Co-op Work Experience II	0	0		20	2
CIS 103 Data Entry Operations	3	2			4
CIS 172 Introduction to the Internet	2	3			3
OST 132 Keyboard Skill Building	1	2			2
OST 133 Advanced Keyboard Skill Building	1	2			2
OST 196 Seminar in Office Systems Technology	0-1	0-3			1
OST 198 Seminar in Office Systems Technology	1-3	0-6			3
OST 191 Selected Topics in Office Systems Technology	0-1	0-3			1
OST 193 Selected Topics in Office Systems Technology	1-3	0-6			3

General Education Core Requirements

	Class	Lab			Credits
ENG 111 Expository Writing	**3**	**0**			**3**
ENG 114 Professional Research and Reporting	3	0			3
COM 110 Introduction to Communications	3	0			3
MAT 115 Mathematical Models	3	0			3
Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3	0			3
ECO 151 Survey of Economics	3	0			3
Total Credit Hours					**73**

Office Systems Technology (A2536A) Legal Concentration

Legal is a concentration under the curriculum title of Office Systems Technology. This curriculum prepares individuals for entry-level positions in legal or government-related offices and provides professional development for the currently employed.

Course work includes terminology, operational procedures, preparation and transcription of documents, computer software, and court-related functions as they relate to the legal office profession. Emphasis is placed on the development of accuracy, organizational skills, discretion, and professionalism.

Graduates should qualify for employment in corporate legal departments; private practices, including real estate and estate planning; and city, state and federal government offices. With appropriate work experience, graduates may apply for certification as a Professional Legal Secretary (PLS).

Degree Awarded

The Associate in Applied Science Degree - Office Systems Technology, Legal Concentration is awarded by the College upon completion of this program.

Note

Students interested in the Office Systems Technology, Legal Concentration should consult with a faculty advisor or program counselor regarding selection of elective courses.

For More Information

The Office Systems Technology, Legal Concentration program is in the Computer and Office Information Systems Division. For more information, call the Program Counselor at 704- 330-6550, Program Advisors at 704-330-6792/6898, or the Division Office at 704-330-6549.

Admissions

• A High School Diploma or equivalent is required.
• Placement tests determine the admission to English (ENG) and mathematics (MAT) courses.
• Students entering this program should take the courses in bold print first if at all possible.
• Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
OST 134 Text Entry and Formatting	3	2			4
OST 136 Word Processing	1	2			2
OST 164 Text Editing Applications	3	0			3
OST 220 Notetaking	3	0			3
OST 289 Office Systems Management	2	2			3
CIS 111 Basic PC Literacy	**1**	**2**			**2**
OST 155 Legal Terminology	**3**	**0**			**3**
OST 156 Legal Office Procedures	2	2			3
OST 251 Legal Document Formatting	2	2			3
OST 252 Legal Transcription I	1	2			2
OST 253 Legal Transcription II	1	2			2
ACC 110 Ten-Key Calculators	**0**	**2**			**1**
OST 236 Advanced Word Processing	2	2			3
OST 137 Office Software Applications	1	2			2
OST 184 Records Management	**1**	**2**			**2**
OST 233 Office Publications Design	2	2			3
OST 131 Keyboarding	**1**	**2**			**2**

Accounting. *Students must select one:*

ACC 115 College Accounting	3	2	4
ACC 120 Principles of Accounting I	3	2	4

Other Major Electives. Students must select 8 credits.

COE 112 Co-op Work Experience I	0	0	20	2
COE 122 Co-op Work Experience II	0	0	20	2
CIS 120 Spreadsheets	2	2		3
CIS 112 Windows	1	2		2
CIS 154 Database	1	2		2
CIS 172 Introduction to the Internet	2	3		3
OST 196 Seminar in Office Systems Technology	0-1	0-3		1
OST 198 Seminar in Office Systems Technology	1-3	0-6		3
OST 191 Selected Topics in Office Systems Technology	0-1	0-3		1
OST 193 Selected Topics in Office Systems Technology	1-3	0-6		3
LEX 120 Legal Research/Writing I	2	2		3
LEX 140 Civil Litigation I	3	0		3
LEX 160 Criminal Law and Procedures	2	0		2
LEX 210 Real Property I	2	0		2
LEX 240 Family Law	2	0		2

General Education Core Requirements

ENG 111 Expository Writing	**3**	**0**	**3**
ENG 114 Professional Research and Reporting	3	0	3
COM 110 Introduction to Communications	3	0	3
MAT 115 Mathematical Models	3	0	3
ECO 151 Survey of Economics	3	0	3

Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at the end of this section of the catalog: 3 0 **3**

Total Credit Hours **73**

Office Systems Technology (A2536B) Medical Concentration

Medical is a concentration under the curriculum title of Office Systems Technology. This curriculum prepares individuals for entry-level positions in medical and allied health facilities. Jobs include transcription, secretary, hospital unit secretary, records clerk, insurance form preparer, patient accounting clerk, and clinical technician.

Course work includes processing, compiling, recording, and maintaining medical records; utilizing office equipment and software; medical law and ethics; billing and coding; and transcribing medical documents.

Employment opportunities include the offices of allied health facilities, HMOs, insurance claims processors, laboratories, and manufacturers and suppliers of medical and hospital equipment.

Degree Awarded

The Associate in Applied Science Degree - Office Systems Technology, Medical Concentration is awarded upon completion of this program.

For More Information

The Office Systems Technology, Medical Concentration Program is in the Computer and Office Information Systems Division. For more information, call the Program Counselor at 704- 330-6550, a Program Advisor at 704- 330-6898 or the Division Office at 704- 330-6549.

Admissions

- A High School Diploma or equivalent is required.
- Placement tests determine the admission to English (ENG) and mathematics (MAT) courses.
- Students entering this program should take the courses in bold print first if at all possible.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
OST 134 Text Entry and Formatting	3	2			4
OST 136 Word Processing	1	2			2
OST 164 Text Editing Applications	3	0			3
OST 289 Office Systems Management	2	2			3
CIS 111 Basic PC Literacy	**1**	**2**			**2**
MED 121 Medical Terminology I	**3**	**0**			**3**
OST 148 Medical Coding, Billing, and Insurance	3	0			3
OST 149 Medical Legal Issues	2	0			2
OST 241 Medical Office Transcription I	1	2			2
OST 243 Medical Office Simulation	2	2			3
MED 122 Medical Terminology II	3	0			3
ACC 110 Ten-Key Calculators	**0**	**2**			**1**
OST 236 Advanced Word Processing	2	2			3
OST 137 Office Software Applications	1	2			2
BIO 161 Introduction to Human Biology	**3**	**0**			**3**
OST 184 Records Management	**1**	**2**			**2**
OST 131 Keyboarding	**1**	**2**			**2**

Accounting *(Students must select one):*

ACC 115 College Accounting	3	2			4
ACC 120 Principles of Accounting I	3	2			4

Other Major Electives (Students must select 8 credits):

COE 112 Co-op Work Experience I	0			20	2
COE 122 Co-op Work Experience II	0			20	2
CIS 120 Spreadsheets	2	2			3
CIS 112 Windows	1	2			2
CIS 172 Introduction to the Internet	2	3			3
OST 233 Office Publications Design	2	2			3
CIS 154 Database Utilization	1	2			2
OST 196 Seminar in Office Systems Technology	0-1	0-3			1
OST 198 Seminar in Office Systems Technology	1-3	0-6			3
OST 191 Selected Topics in Office Systems Technology	0-1	0-3			1
OST 193 Selected Topics in Office Systems Technology	1-3	0-6			3

General Education Core Requirements

ENG 111 Expository Writing	**3**	**0**	**3**
ENG 114 Professional Research and Reporting	3	0	3
COM 110 Introduction to Communications	3	0	3
MAT 115 Mathematical Models	3	0	3
ECO 151 Survey of Economics	3	0	3

Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at the end of this section of the catalog: 3 0 3

Total Credit Hours **73**

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Office Systems Technology Diploma (D25360)

General Clerical Skills

The purpose of the General Clerical Skills curriculum is to prepare the individual to enter clerical office occupations. This purpose will be fulfilled through skill development in the areas of word processing, records management, and ten-key calculators. Through these skills and through development of personal competencies and qualities, an individual will be able to function effectively in office-related activities at the entry level. The courses in this diploma can be applied toward the A.A.S. degree in Office Systems Technology.

Graduates should qualify for employment in general clerical positions in business, government, and industry.

Diploma Awarded

The Diploma in General Clerical Skills– Office Systems Technology is awarded by the College upon completion of this program.

For More Information

The General Clerical Skills Diploma is in the Computer and Office Information Systems Division. For More information, call the Program Counselor 704-330-6550, a Program Advisor 704-330-6792 or 704-330-6898, or Division Office 704-330-6549.

Admissions

- A High School Diploma or equivalent is required
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
OST 131 Keyboarding	1	2			2
OST 184 Records Management	1	2			2
CIS 111 Basic PC Literacy	1	2			2
ACC 110 Ten-Key Calculator	0	2			2
CIS 112 Windows	1	2			2
OST 220 Notetaking	3	0			3
OST 164 Text Editing Applications	3	0			3
OST 134 Text Entry and Formatting	3	2			4
OST 136 Word Processing	1	2			2
OST 137 Office Software Applications	1	2			2
BUS 255 Org. Behavior in Business	3	0			3
OSX 7311 Receptionist Skills	0	0			0
COE 112 Co-Operative Work Experience I	0			20	2

General Education Core Requirements

	Class	Lab			Credits
ENG 111 Expository Writing	3	0			3
ECO 151 Survey of Economics	3	0			3
Total Credit Hours					**35**

Office Systems Technology Diploma (D25360)

Word Processing Operator

The Word Processing curriculum prepared individuals to create, edit, and proof a variety of documents accurately. Upon completion of this program, students will possess knowledge of word processing (Word and WordPerfect), database, spread-sheet, and electronic mail software. The courses in this diploma can be applied toward the A.A.S. degree in Office Systems Technology.

Graduates should qualify for employment in word processing positions in business, government, and industry.

Diploma Awarded

The Diploma in Word Processing Operator – Office Systems Technology is awarded by the College upon completion of this program.

For More Information

The Word Processing Operator Diploma is in the Computer and Office Information Systems Division. For more information, call the Program Counselor 704-330-6550, a Program Advisor 704-330-6792 or 704-330-6898, or Division Office 704-330-6549.

Admissions

- A High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
OST 131 Keyboarding	1	2			2
OST 184 Records Management	1	2			2
ENG 111 Expository Writing	3	0			3
CIS 110 Intro. to Computer OR					
CIS 111 Basic PC Literacy	1	2			2
OST 136 Word Processing	1	2			2
OST 164 Text Editing Applications	3	0			3
OST 134 Text Entry and Formatting	3	2			4
OST 236 Advanced Word/Info. Processing	2	2			3
OST 137 Office Software Applications	1	2			2
CIS 112 Windows	1	2			2
CIS 154 Database Utilization	1	2			2
OST 233 Publication and Design	2	2			3
CIS 172 Intro to the Internet	2	3			3

Select one Course

	Class	Lab	Hours Clinical	Work Exper.	Credits
COE 112 Co-Operative Work Experience I	0			20	2
BUS 110 Introduction to Business	3	0			3
OST 155 Legal Terminology	3	0			3
MED 121 Medical Terminology I	3	0			3

General Education Core Requirements

	Class	Lab			Credits
ENG 111 Expository Writing	3	0			3
ECO 151 Survey of Economics	3	0			3
Total Credit Hours					**40-42**

Office Systems Technology Certificates

Specialization Certificate

Office Systems Technology Receptionist Skills Certificates (C25360-C1)

The Receptionist curriculum prepares individuals to receive and route telephone calls, greet visitors, and handle filing, mailing, copying, and faxing. In addition, students would possess basic keyboarding and computer skills. The courses in this certificate can be applied toward the A.A.S. degree in Office Systems Technology.

Graduates should qualify for employment in receptionist positions in business, government, and industry.

Certificate Awarded

The Certificate in Receptionist Skills – Office Systems Technology is awarded by the College upon completion of this program.

For More Information

The Receptionist Skills Certificate is in the Computer and Office Information Systems Division. For more information, call the Program Counselor 704-330-6550, the Program Advisors 704-330-6792 or 704-330-6898, or Division Office 704-330-6549.

Admissions

- A High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
OST 131 Keyboarding	1	2			2
OST 184 Records Management	1	2			2
OST 136 Word Processing	1	2			2
CIS 111 Basic PC Literacy	1	2			2
OST 164 Text Editing Applications	3	0			3
OST 137 Office Software Applications	1	2			2
OSX 7311 Receptionist Skills	0	0			0
Total Credit Hours					**13**

Office Systems Technology Software Use (C25360-C2)

The Certificate in Software Use provides students with an introductory knowledge of software usage to enable them to function effectively in an office environment using the touch keying system. Students will have knowledge of word processing, database, spreadsheets, and electronic mail applications. The courses in this certificate can be applied toward the A.A.S. degree in Office Systems Technology.

Graduates should qualify for employment in entry-level positions in business, government, and industry.

Certificate Awarded

The Certificate in Software Use – Office Systems Technology is awarded by the College upon completion of this program.

For More Information

The Software Use Certificate is in the Computer and Office Information Systems Division. For more information, call the Program Counselor 704-330-6550, the Program Advisor 704-330-6898 or 704-330-6792, or Division Office 704-330-6549.

Admissions

- A High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
OST 131 Keyboarding	1	2			2
CIS 111 Basic PC Literacy	1	2			2
OST 136 Word Processing	1	2			2
OST 137 Office Software Applications	1	2			2

OST 236 Advanced Word/Info. Processing	2	2			3
CIS 154 Database Utilization	1	2			2
CIS 112 Windows	1	2			2
CIS 120 Spreadsheets I	2	2			3
Total Credit Hours					**18**

Office Systems Technology Data Entry (C25360-C3)

The Data Entry Curriculum is designed to prepare the individual for employment in the field of data entry. Students will study data descriptions and formats, interpret source documents, develop data entry skills necessary for the manipulation of data, and become experienced using data entry devices.

Graduates should qualify for employment as a data entry operator.

Certificate Awarded

The Certificate in Data Entry - Office Systems Technology is awarded by the College upon completion of this program.

For More Information

The Data Entry Certificate is in the Computer and Office Information Systems Division. For more information, call the Program Counselor 704-330-6550, the Faculty Advisor 704-330-6243, or Division Office 704-330-6549.

Admissions

A High School Diploma or equivalent is desired.

Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
OST 131 Keyboarding	1	2			2
CIS 111 Basic PC Literacy	1	2			2
CIS 112 Windows	1	2			2
CIS 103 Data Entry Operations	3	2			4
OST 132 Keyboard Skill Building	1	2			2
OST 133 Adv. Keyboard Skill Building	1	2			2
Total Credit Hours					**14**

Optional: For information about COE 112 Cooperative Work Experience I, check with the Data Entry Faculty Advisor.

Paralegal Technology (A25380)

ABA Approved

The Paralegal Technology curriculum prepares individuals to work under the supervision of attorneys by performing routine legal tasks and assisting with substantive legal work. A paralegal /legal assistant may not practice law, give legal advice, or represent clients in a court of law.

Course work includes substantive and procedural legal knowledge in the areas of civil litigation, legal research and writing, real estate, family law, wills, estates, trusts, and commercial law. Required courses also include subjects such as English, mathematics, and computer utilization.

Graduates are trained to assist attorneys in probate work, investigations, public records search, drafting and filing legal documents, research, and office management. Employment opportunities are available in private law firms, governmental agencies, banks, insurance agencies, and other business organizations.

Degree Awarded

An Associate in Applied Science Degree - Paralegal Technology is awarded by the College upon completion of this program.

For More Information

The Paralegal Technology Program is in the Business and Accounting Division. For more information, call the Program Chair at 704- 330-6873 or the division office at 704- 330-6595/6646. A Program Counselor can be reached by calling 704- 330-6229.

Admission

- A High School Diploma or equivalent is required.
- Placement test scores will determine placement in English and mathematics courses.
- A minimum placement test score in reading is a prerequisite to all LEX courses.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Students should make every effort to complete LEX 110 Introduction to Paralegal Study during their first semester.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ACC 120 Principles of Accounting I	3	2			4
CIS 111 Basic PC Literacy	1	2			2
OR					
CIS 110 Intro to Computer (Recommended)					
CIS 172 Intro to the Internet	2	3			3
LEX 110 Introduction to					
Paralegal Study	2				2
LEX 120 Legal Research/Writing I	2	2			3
LEX 121 Legal Research/Writing II	2	2			3
LEX 130 Civil Injuries	2				2
LEX 140 Civil Litigation I	3				3
LEX 141 Civil Litigation II	2	2			3
LEX 150 Commercial Law	2	2			3
LEX 210 Real Property I	2				2
LEX 240 Family Law	2				2
LEX 250 Wills, Estates and Trusts	2	2			3
LEX 280 Ethics and Professionalism	2				2
OST 131 Keyboarding	1	2			2
OST 136 Word Processing	1	2			2
OST 164 Text Editing Applications	3				3

Technical Electives

Students must choose six hours from the following list::

	Class	Lab	Hours Clinical	Work Exper.	Credits
COE 111 Co-op Work Experience I	0			10	1
OR					
COE 112 Co-op Work Experience I	0			20	2
COE 121 Co-op Work Experience II	0			10	1
OR					
COE 122 Co-op Work Experience II	0			20	2
LEX 160 Criminal Law and					
Procedure	2	2			3
LEX 170 Administrative Law	2				2
LEX 192 Selected Topics					
in Paralegal	2				2
LEX 211 Real Property II	1	4			3
LEX 220 Corporate Law	2				2
LEX 260 Bankruptcy and					
Collections	2				2
LEX 285 Workers' Compensation					
Law	2				2

General Education Core Requirements

COM 231 Public Speaking					
OR					
COM 233 Persuasive Speaking					
(recommended)	3				3
ENG 111 Expository Writing	3				3
ENG 112 Argument-Based Research	3				3
ENG 114 Professional Research					
and Reporting	3				3
MAT 115 Mathematical Models					
OR					
MAT 140 Survey of Mathematics					
OR					
MAT 161 College Algebra	3				3

Students must choose a minimum of 3 credit hours from the list of approved humanities courses listed at the end of this section of the catalog: 3   3

Students must choose a minimum of 3 credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog. 3   3

Total Credit Hours   **71**

Paralegal Technology Diploma (D25380)

ABA Approved

Overview

This program is open to students who hold a Bachelor's Degree from an accredited college or university.

Diploma Awarded

A post-baccalaureate Paralegal Technology Diploma is awarded by the College upon completion of this program.

Admission

- An official college transcript is required.
- A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.
- A counseling/orientation appointment follows placement testing.
- Students should make every effort to complete LEX 110 Introduction to Paralegal Study during their first semester.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

For More Information

Call the Program Chair at 704- 330-6873.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
LEX 110 Introduction to					
Paralegal Study	2				2
LEX 120 Legal Research/Writing I	2	2			3
LEX 121 Legal Research/Writing II	2	2			3
LEX 140 Civil Litigation I	3				3
LEX 280 Ethics and Professionalism	2				2
OST 131 Keyboarding	1	2			2
OST 136 Word Processing	1	2			2
CIS 110 Intro to Computers (Recommended)					
OR					
CIS 111 Basic PC Literacy	1	2			2
CIS 172 Intro to the Internet	2	3			3

Electives

(Choose 11 SHC from the following list:)

	Class	Lab	Hours Clinical	Work Exper.	Credits
COE 111 Co-op Work Experience I	0			10	1
OR					
COE 112 Co-op Work Experience I	0			20	2

	Class	Lab	Hours Clinical	Work Exper.	Credits
COE 121 Co-op Work Experience II	0			10	1
OR					
COE 122 Co-op Work Experience II	0			20	2
LEX 130 Civil Injuries	2				2
LEX 141 Civil Litigation II	2	2			3
LEX 150 Commercial Law	2	2			3
LEX 160 Criminal Law and					
Procedure	2	2			3
LEX 170 Administrative Law	2				2
LEX 192 Selected Topics					
in Paralegal	2				2
LEX 210 Real Property I	2				2
LEX 211 Real Property II	1	4			3
LEX 220 Corporate Law	2				2
LEX 240 Family Law	2				2
LEX 250 Wills, Estates and Trusts	2	2			3
LEX 260 Bankruptcy and					
Collections	2				2
LEX 285 Workers' Compensation					
Law	2				2

General Education Core Requirements

COM 231 Public Speaking	3				3
OR					
COM 233 Persuasive Speaking (recommended)					
SOC (Students must choose a minimum of three (3) credit hours from the list of approved Social Science courses listed at the end of this section of the catalog.)					3
Total Credit Hours					**39**

Physical Fitness Technology (A45610)

Curriculum Description

The Physical Fitness Technology program is designed to provide students with the knowledge and skills necessary for employment in the fitness and exercise industry.

Students will be trained in exercise science and be able to administer basic fitness tests and health risk appraisals, teach specific exercise and fitness classes and provide instruction in the proper use of exercise equipment and facilities.

Graduates should qualify for employment opportunities in commercial fitness clubs, YMCA's/YWCA's, wellness programs in business and industry, parks and recreation departments and other organizations implementing exercise and fitness programs.

Degree Awarded

The Associate in Applied Science Degree - Physical Fitness Technology is awarded by the College upon completion of this program.

For More Information

The Physical Fitness Technology program is in the Health, Physical Education and Recreation Department. For more information call the Program Chair at 704-330-4164 or the departmental office at 704-330-6937/6458.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics and reading.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
PSF 110 Exercise Science	4		0		4
PSF 111 Fitness & Exercise					
Testing 1	3		2		4
PSF 114 Phys. Fit. Theory & Instr	4		0		4
PSF 116 Pvnt & Care Exer Injuries	3		2		4
PSF 120 Group Exer Instruction	2		2		3
PSF 210 Personal Training	3		2		4
PSF 211 Fitness & Exer Testing II	3		2		4
PSF 212 Exercise Programming	3		2		4
PSF 218 Lifestyle Chng & Wellness	3		2		4
PED 111 Physical Fitness I	0		3		1
COE 111 Co-Op Work					
Experience I	0	0		10	1
COE 121 Co-Op					
Work Experience II	0		0	10	1
BIO 168 Anatomy & Physiology I	3		3		4
BIO 169 Anatomy & Physiology II	3		3		4
BIO 155 Nutrition	3		0		3
*Elective	2		0		2

General Education Core Requirements

ENG 111 Expository Writing	3		0		3
ENG 114 Prof Research &					
Reporting	3		0		3
COM 231 Public Speaking	3		0		3
CIS 111 Basic PC Literacy	1		2		2
MAT 115 Mathematical Models	2		2		3
PSY 150 General Psychology	3		0		3
HUM (Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.)	3		0		3
Total Credit Hours					**71**

*Elective Choices: Two credit hours may be taken from these prefixes: HEA, BIO, BUS, CIS, DAN, MUS, PED, PSY, SOC.

Physical Therapist Assistant (A45640)

Curriculum Description

The Physical Therapist Assistant curriculum prepares graduates to work in direct patient care settings under the supervision of physical therapists. Assistants work to improve or restore function by alleviation or prevention of physical impairment and perform other essential activities in a physical therapy department.

Course work includes normal human anatomy and physiology, the consequences of disease or injury, and physical therapy treatment of a variety of patient conditions affecting humans throughout the lifespan.

Graduates may be eligible to take the licensure examination administered by the N.C. Board of Physical Therapy Examiners. Employment is available in general hospitals, rehabilitation centers, extended care facilities, specialty hospitals, home health agencies, private clinics, and public school systems.

Degree Awarded

The Associate in Applied Science Degree - Physical Therapist Assistant is awarded by the College upon completion of this program.

Program Accreditation

The Physical Therapist Assistant program at CPCC is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association.

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Note

In addition to tuition and textbooks, costs of the program include uniforms, travel to clinical sites, liability and accident insurance, a fee for CPR certification and/or recertification, a fee for licensure application, and the cost of a physical examination including immunizations and blood tests. Current CPR certification is required prior to all clinical courses.

For More Information

The Physical Therapist Assistant Program is in the Health Sciences Division. For more information, call the Health Sciences Division at 704-330-6725, weekdays from 8 a.m. -5 p.m. Program Counselors can be reached by calling 704-330-6500 or 6468.

Admissions

- · A High School Diploma or equivalent is required.
- • Complete a CPCC admission application.
- • Take required placement tests.
- • Submit all official high school transcripts and any college transcripts.
- • Attend Health Sciences Counselor orientation session.
- • Complete any required Advancement Studies courses with a grade of C or better.
- • Students must be selected to enter the program. Upon acceptance and enrollment in the program, students must take all courses as scheduled and sequenced.
- • Continued progression in the program requires a grade of C or better in every course.
- • BIO 168 and BIO 169 must have been completed within the last 5 years.
- • A physical examination documenting the applicant's ability to complete all program requirements is also required.
- • Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
PTA 110 Introduction to Physical Therapy	2	3	0		3
PTA 125 Gross and Functional Anatomy	3	6	0		5
PTA 135 Pathology	4	0	0		4
PTA 145 Therapeutic Procedures	2	6	0		4
PTA 165 PTA Clinical I	0	0	9		3
PTA 185 PTA Clinical II	0	0	9		3
PTA 212 Health Care/Resources	2	0	0		2
PTA 215 Therapeutic Exercise	2	3	0		3
PTA 222 Professional Interactions	2	0	0		2
PTA 225 Introduction to Rehabilitation	3	3	0		4
PTA 235 Neurological Rehabilitation	3	6	0		5
PTA 245 PTA Clinical III	0	0	12		4
PTA 255 PTA Clinical IV	0	0	12		4
BIO 168 Anatomy and Physiology I	3	3	0		4
BIO 169 Anatomy and Physiology II	3	3	0		4

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0	0		3
ENG 113 Literature-Based Research OR					
ENG 114 Professional Research and Reporting	3	0	0		3
COM 110 Introduction to Communication OR					
COM 231 Public Speaking OR					
COM 233 Persuasive Speaking	3	0	0		3
PSY 150 General Psychology	3	0	0		3
MAT 140 Survey of Mathematics OR	3	0	0		3
MAT 161 College Algebra					
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.	3	0	0		3
Total Credit Hours					**72**

NOTE: By the end of the first semester of acceptance into the Physical Therapist Assistant Program, the student must demonstrate basic computer competencies through other coursework or testing. The Division Director of Computer and Office Information Systems will determine equivalent competency.

Respiratory Care (A45720)

Curriculum Description

The Respiratory Care curriculum prepares individuals to function as respiratory care technicians and/or respiratory care therapists. In these roles, individuals perform diagnostic testing, treatments, and management of patients with heart and lung diseases.

Students will master skills in patient assessment and treatment of cardiopulmonary diseases. These skills include life support, monitoring, drug administration, and treatment of patients of all ages in a variety of settings.

Graduates of accredited programs may be eligible to take entry level examinations from the National Board for Respiratory Care. Therapy graduates may also take Advanced Practitioner. Graduates may be employed in hospitals, clinics, nursing homes, education, industry, and home care.

Degree Awarded

The Associate in Applied Science Degree - Respiratory Care is awarded by the College upon completion of this program.

Note

In addition to tuition and textbooks, costs of this program include the following: uniforms, lab coat, stethoscope, scissors, hemostats, watch with a second hand, a physical examination including immunizations such as tetanus toxoid, Hepatitis B, TB test, blood test e.g., Rubella titer, fees for Basic Cardiac Life Support course, Basic Cardiac Life Support Instructor course, Advanced Cardiac Life Support course, and fees for Self Assessment Examinations (4).

The student must provide a certificate of health or accident insurance.

In order to progress in this program, students must earn a C or better in all curriculum courses.

For More Information

The Respiratory Care program is in the Health Sciences Division. For more information, call the Health Sciences Division at 704- 330-6725, weekdays, from 8 a.m. -5 p.m. Program Counselors can be reached by calling 704- 330-6500 or 6468.

Admissions

- • Complete a CPCC application.
- • Submit high school transcripts as well as any college transcripts.

- Take required placement tests.
- Attend Health Sciences Counselor orientation.
- Complete any required advancement studies classes with a C or better.
- Complete at least high school level chemistry with a C or better within the last 5 years.
- BIO 163 must have been completed within the last 5 years.
- Applicants must also present evidence of good physical and mental health.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
BIO 163 Basic Anatomy and Physiology	4	2	0		5
MED 120 Survey of Medical Terminology	2	0	0		2
RCP 110 Introduction to Respiratory Care	3	3	0		4
RCP 123 Special Practice Lab	0	3	0		1
RCP 111 Therapeutics and Diagnostics	4	3	0		5
RCP 113 Pharmacology	2	0	0		2
RCP 114 Cardiopulmonary Anatomy & Physiology	3	0	0		3
RCP 115 Cardiopulmonary Pathophysiology	2	0	0		2
RCP 133 Clinical Practice I	0	0	9		3
RCP 112 Patient Management	3	3	0		4
RCP 143 Clinical Practice II	0	0	9		3
RCP 210 Critical Care Concepts	3	3	0		4
RCP 214 Neonatal / Ped Concepts	1	3	0		2
RCP 235 Clinical Practice IV	0	0	15		5
RCP 211 Advanced Monitoring and Procedures	3	3	0		4
RCP 215 Career Preparation	0	3	0		1
RCP 247 Clinical Practice V	0	0	21		7

General Education Core Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	3	0	0		3
MAT 115 Mathematical Models OR	3	0	0		3
MAT 140 Survey of Mathematics					
ENG 113 Literature-Based Research OR					
ENG 114 Professional Research and Reporting	3	0	0		3
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog.	3	0	0		3
COM 110 Introduction To Communication OR	3	0	0		3
Public Speaking COM 231 Persuasive Speaking OR					
COM 233					
Students must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0	0		3
Total Credit Hours					75

NOTE: By the end of the first semester of acceptance into the Respiratory Care Program, the student must demonstrate basic computer competencies through other coursework or test-

ing. The Division Director of Computer and Office Information Systems will determine equivalent competency.

Substance Abuse

(See Human Services Technology)

Surveying Technology (A40380)

The Surveying Technology curriculum provides training for technicians in the many areas of surveying. Surveyors are involved in land surveying, route surveying, construction surveying, photogrammetry, mapping, global positioning systems, geographical information systems, and other areas of property description and measurements.

Course work includes the communication and computational skills required for boundary, construction, route, and control surveying, photogrammetry, topography, drainage, surveying law, and subdivision design, with emphasis upon applications of electronic data collection and related software including CAD.

Graduates should qualify for jobs as survey party chief, instrument person, surveying technician, highway surveyor, mapper, GPS technician and CAD operator. Graduates will be prepared to pursue the requirements necessary to become a Registered Land Surveyor in North Carolina.

Degree Awarded

The Associate in Applied Science Degree - Surveying Technology will be awarded by the College upon completion of this program.

For More Information

The Surveying Technology program is in the Engineering Technologies Division. For more information, call the Program Counselor at 704- 330-6881 or the Program Chair at 704- 330-6578, weekdays from 8:00 a.m. - 5:00 p.m.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English and Mathematics. Advancement Studies in English and Mathematics courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first if at all possible.
- Students should see a Faculty Advisor before registration.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Note

Students who do not take program-related courses for a one year period must reenter the program under the Catalog in effect at the time of reentry.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
CIS 111 Basic PC Literacy	**1**	**2**	**0**	**0**	**2**
CIV 110 Statics/Strength of Materials	2	6	0	0	4
CIV 125 Civil/Survey CAD	1	6	0	0	3
CIV 211 Hydraulics and Hydrology	2	3	0	0	3
EGR 115 Intro to Technology	**2**	**6**	**0**	**0**	**4**
SRV 110 Surveying I	**2**	**6**	**0**	**0**	**4**
SRV 111 Surveying II	2	6	0	0	4

	Class	Lab	Clinical	Work Exper.	Credits
SRV 210 Surveying III	2	6	0	0	4
SRV 220 Surveying Law	2	2	0	0	3
SRV 230 Subdivision Planning	1	6	0	0	3
SRV240 Topo/Site Surveying	2	6	0	0	4
SRV250 Advanced Surveying	2	6	0	0	4

Technical Electives (to be selected from list below)

					6
					48

Technical Electives

	Class	Lab	Clinical	Work Exper.	Credits
CIV 212 Environmental Planning	2	3	0	0	3
CIV 215 Highway Technology	1	3	0	0	2
CIV 220 Basic Structural Concepts	1	3	0	0	2
COE 112 Co-op Work Experience I	0	0	0	20	2
CSC 132 Basic Programming	2	3	0	0	3
MAT 223 Applied Calculus	2	2	0	0	3
PHY 132 Physics-Elec & Magnetism	3	2	0	0	4
SRV 192 Selected Topics in Surveying Technology	1	3	0	0	2
SRV 198 Seminar in Surveying Technology	2	3	0	0	3
SRV 260 Field and Office Practices	1	3	0	0	2

General Education Core Requirements

	Class	Lab	Clinical	Work Exper.	Credits
COM 110 Intro to Communications	3	0	0	0	3
ENG 111 Expository Writing	**3**	**0**	**0**	**0**	**3**
ENG 114 Professional Research and Reporting	3	0	0	0	3
MAT 121 Algebra/Trigonometry I	**2**	**2**	**0**	**0**	**3**
MAT 122 Algebra/Trigonometry II	2	2	0	0	3
PHY 131 Physics-Mechanics	3	2	0	0	4
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3	0	0	0	3
Students must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0	0	0	3
					25
Total Credit Hours					**73**

Travel and Tourism Technology (A 25440)

The Travel and Tourism Technology curriculum is designed to train individuals to become travel consultants capable of planning and arranging a full spectrum of travel components for clients. Students will learn to operate within a global travel information network.

Instruction includes industry terminology, travel and tourism careers, reservation and ticketing procedures, airline computer training, world destinations, cruises, tour arranging and escorting, rail, travel sales and marketing, and practical skills necessary for the day-to-day operation of a retail travel firm.

The graduate of this program will be primarily trained for employment by travel agencies. Students may also be employed by the airlines, the hospitality industry, rental car companies, tour operators, cruise lines, rail companies, and visitors' centers.

Degree Awarded

The Associate in Applied Science Degree - Travel and Tourism Technology is awarded by the College upon completion of this program.

For More Information

The Travel and Tourism Technology program is in the Hospitality Education Division. For more information, call the Program Chair at 704- 330-6770, weekdays, 8 a.m.-5 p.m. Program Counselors can be reached by calling 704- 330-6550.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics, and reading.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
TAT 110 Introduction to Travel and Tourism	**3**	**0**			**3**
TAT 112 Domestic Reservations and Ticketing	**3**	**2**			**4**
TAT 114 International Reservations and Ticketing	**3**	**2**			**4**
TAT 116 World Destinations I	**3**	**0**			**3**
TAT 118 World Destinations II	3	0			3
TAT 120 World Destinations III	3	0			3
TAT 122 Cars, Rails, and Rooms	3	2			4
TAT 210 Travel Sales and Marketing	4	0			4
TAT 212 Cruise Marketing and Sales	3	0			3
TAT 214 Tour Planning and Escorting	3	0			3
TAT 220 Travel Agency Management	3	0			3
COE 112 Cooperative Education	0	0		20	2
BUS 230 Small Business Management	3	0			3
BUS 255 Org. Behavior in Business	3	0			3
CIS 111 Basic PC Literacy	1	2			2
CIS 172 Intro to the Internet	2	2			3

General Education Core Requirements

	Class	Lab	Clinical	Work Exper.	Credits
ENG 111 Expository Writing	**3**	**0**			**3**
ENG 114 Professional Research and Reporting	3	0			3
MAT 115 Mathematical Models	3	0			3
Choose one course from the following:					
COM 110 Introduction to Communication	3	0			3
COM 231 Public Speaking	3	0			3
Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3	0			3
Students must choose one course from the following:					
ECO 251 Principles of Microeconomics	3	0			3
GEO 111 World Regional Geography	3	0			3
HIS 236 North Carolina History	3	0			3
Total Credit Hours					**68**

Travel and Tourism Technology Diploma (D25440)

The Travel and Tourism Diploma curriculum is designed to train individuals to become travel consultants capable of planning and arranging a full spectrum of travel components for clients.

The graduate of this program will be primarily trained for entry level employment by travel agencies, airlines, the hospitality industry, rental car companies, tour operators, cruise lines, rail companies, and visitors' centers.

Diploma Awarded

A diploma in Travel and Tourism Technology (A25440) is awarded by the College upon completion of this program.

For More Information

The Travel and Tourism Technology program is in the Hospitality Education Division. For more information, call the Program Chair at 704- 330-6770, weekdays, 8 a.m.-5 p.m. Program Counselors can be reached by calling 704- 330-6550.

Admissions

- A High School Diploma or equivalent is required.
- CPCC placement tests are required in English, mathematics, and reading.
- A counseling/orientation appointment follows placement testing.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
TAT 110 Introduction to Travel and Tourism	**3**	**0**			**3**
TAT 112 Domestic Reservations and Ticketing	**3**	**2**			**4**
TAT 114 International Reservations and Ticketing	3	2			4
TAT 116 World Destinations I	**3**	**0**			**3**
TAT 118 World Destinations II	3	0			3
TAT 120 World Destinations III	3	0			3
TAT 122 Cars, Rails, and Rooms	3	2			4
TAT 210 Travel Sales and Marketing	4	0			4
TAT 212 Cruise Marketing and Sales	3	0			3
TAT 214 Tour Planning and Escorting	3	0			3
TAT 220 Travel Agency Management	3	0			3
COE 112 Cooperative Education	0	0		20	2

General Education Core Requirements:

	Class	Lab	Hours Clinical	Work Exper.	Credits
ENG 111 Expository Writing	**3**	**0**			**3**

Choose one Communications course from the following:

	Class	Lab	Hours Clinical	Work Exper.	Credits
COM 110 Introduction to Communication	3	0			3
COM 231 Public Speaking	3	0			3
Total Credit Hours					**45**

Travel and Tourism Certificates

Specialization Certificates

Airline Computer Reservation Certificate (A25440 - C1)

The Airline Computer Reservation Certificate is designed to train individuals who currently are working on Sabre, Apollo, or Worldspan Reservation Systems and convert their present knowledge to the System One/Amadeus Information System through Windows application.

Instruction includes industry terminology, domestic and international reservations and ticketing as well as car, hotel, and rail reservations.

The successful completion of this program will prepare the student for employment by travel agencies and airlines. This curriculum is approved by the System One/Amadeus Certified School Program.

Specialization Certificate

This certificate can be earned in the Travel and Tourism Technology Program (A25440).

For More Information

The Travel and Tourism Technology program is in the Hospitality Education Division. For more information, call the Program Chair at 704- 330-6770, weekdays, 8 a.m.-5 p.m. Program Counselors can be reached by calling 704- 330-6550.

Admissions

- A High School Diploma or equivalent is required.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
TAT 112 Domestic Reservations and Ticketing	**3**	**2**			**4**
TAT 114 International Reservations and Ticketing	3	2			4
TAT 122 Cars, Rails, and Rooms	3	2			4
COE 112 Cooperative Education	0	0		20	2
Total Credit Hours					**14**

Cruise Marketing and Sales Certificate (A 25440 - C2)

The certificate in Cruise Marketing and Sales is designed to train individuals to become cruise-only travel consultants capable of planning and arranging cruise vacations.

Instruction includes terminology, cruise line and agency careers, reservation and document procedures, domestic and international destination proficiency, sales techniques and practical skills necessary for the day-to-day operation of a retail cruise travel firm.

Upon successful completion of this certificate program, the student will be primarily trained for employment by cruise-only travel agencies or those retail full service agencies that promote cruise vacations.

Note

At the discretion of the student's faculty advisor, some prerequisites listed in the course descriptions may be waived for certificate students. Consult with your faculty advisor regarding waiver of prerequisites.

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College-Level Programs

Specialization Certificate

This certificate can be earned in the Travel and Tourism Technology Program (A 25440).

For More Information

The Travel and Tourism Technology program is in the Hospitality Education Division. For more information, call the Program Chair at 704- 330-6770, weekdays, 8 a.m.-5 p.m. Program Counselors can be reached by calling 704- 330-6550.

Admissions

- A High School Diploma or equivalent is required.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
TAT 116 World Destinations I	**3**				**3**
TAT 118 World Destinations II	3				3
TAT 120 World Destinations III	3				3
TAT 210 Travel Marketing and Sales	**4**				**4**
TAT 212 Cruise Marketing and Sales	3				3
COE 112 Cooperative Education	0	0		20	2
Total Credit Hours					**18**

Tour Planning and Escorting Certificate (A 25440 - C3)

The certificate in Tour Planning and Escorting is designed to train individuals to become tour planners as well as tour escorts capable of planning, arranging, and escorting independent and group tour vacations.

Instruction includes terminology, tour operator, and escorting careers, reservation, and document procedures, domestic and international destination proficiency, sales techniques, and practical skills necessary for the day-to-day operation of a retail tour firm.

Upon successful completion of this certificate program, the student will be primarily trained for employment by tour operators, destination management, or motorcoach companies.

Note

At the discretion of the student's faculty advisor, some prerequisites listed in the course descriptions may be waived for certificate students. Consult with your faculty advisor regarding waiver of prerequisites.

Specialization Certificate

This certificate can be earned in the Travel and Tourism Technology Program (A 25440).

For More Information

The Travel and Tourism Technology program is in the Hospitality Education Department. For more information, call the Program chair at 704- 330-6770, weekdays, 8 a.m.-5 p.m. Program Counselors can be reached by calling 704- 330-6550.

Admissions

- A High School Diploma or equivalent is required.
- Students entering this program should take the courses in bold print first.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
TAT 116 World Destinations I	**3**				**3**
TAT 118 World Destinations II	3				3
TAT 120 World Destinations III	3				
TAT 210 Travel Marketing and Sales	**4**				**4**
TAT 214 Tour Planning and Escorting	3				3
COE 112 Cooperative Education				20	2
Total Credit Hours					**18**

Welding Technology (A50420)

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical applications.

Successful graduates of the Welding Technology curriculum may be employed as entry level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self employment.

Degree Awarded

The Associate in Applied Science - Welding Technology is awarded by the College upon completion of this program.

For More Information

The Welding Technology program is in the Technical Careers Division. For more information, call the Program Chair at 704- 330-6686, or the Division office at 704- 330-4445, weekdays 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6229 or 6059.

Admissions

- Completion of a High School Diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 110 Cutting Processes	1	3			2
WLD 115 S.M.A.W. (Stick) Plate	2	9			5
WLD 121 G.M.A.W. (Mig) F.C.A.W. Plate	2	6			4
WLD 131 G.T.A.W. (Tig) Plate	2	6			4
WLD 141 Symbols and Specifications	2	2			3
WLD 122 G.M.A.W. (Mig) Plate/Pipe	1	6			3
WLD 132 G.T.A.W. (Tig) Plate/Pipe	1	6			3
WLD 116 S.M.A.W. (Stick) Plate/Pipe	1	9			4
WLD 231 G.T.A.W. (Tig) Pipe	1	6			3
WLD 215 S.M.A.W. (Stick) Pipe	1	9			3
WLD 151 Fabrication I	2	6			4
WLD 251 Fabrication II	2	6			4
WLD 261 Certification Practices	1	3			2

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 262 Inspection & Testing	2	2			3
WLD 143 Welding Metallurgy	1	2			2
CIS 110 Introduction to Computers	2	2			3

Students must select 4 credit hours from courses below:

	Class	Lab	Hours Clinical	Work Exper.	Credits
COE 112 Co-op Work Experience I				20	2
WLD 145 Thermoplastic Welding	1	3			2
WLD 111 Oxy-Fuel Welding	1	3			2
PHY 110 Conceptual Physics	3	0			3
PHY 110A Conceptual Physics Lab	0	2			1
WLD 265 Automated Welding/Cutting	2	6			4
WLD 190 Special Topics in Welding	1	6			3
WLD 221 GMAW (MIG) Pipe	1	6			3
WLD 112 Basic Welding Processes	1	3			2

General Education Core Requirements

Students must complete two English courses and one COM course from the following:

	Class	Lab			Credits
ENG 111 Expository Writing	3	0			3
ENG 114 Professional Research and Reporting	3	0			3
COM 110 Introduction to Communications	3	0			3
OR					
COM 231 Public Speaking	3	0			3

Students must complete one (1) course from the following:

	Class	Lab			Credits
MAT 115 Mathematical Models	2	2			3
MAT 140 Survey of Mathematics	3	0			3
MAT 161 College Algebra	3	0			3

Students must choose a minimum of three (3) credit hours from the list of approved humanities courses listed at the end of this section of the catalog:	3	0			3
Students must choose a minimum of three (3) credit hours from the list of approved behavioral and social sciences courses listed at the end of this section of the catalog.	3	0			3
Total Credit Hours					**73**

Welding Technology Diploma (D50420)

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical applications.

Successful graduates of the Welding Technology curriculum may be employed as entry level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self employment.

Diploma Awarded

A Diploma in Welding Technology is awarded by the College upon completion of this program.

For More Information

The Welding Technology program is in the Technical Careers Division. For more information, call the Program Chair at 704- 330-6686 or the Division office at 704- 330-4445, weekdays from 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6229 or 6059.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 110 Cutting Processes	1	3			2
WLD 115 S.M.A.W. (Stick) Plate	2	9			5
WLD 121 G.M.A.W. (Mig) F.C.A.W. Plate	2	6			4
WLD 131 G.T.A.W. (Tig) Plate	2	6			4
WLD 141 Symbols and Specifications	2	2			3
WLD 116 S.M.A.W. (Stick) Plate/Pipe	1	9			4
WLD 122 G.M.A.W. (Mig) Plate/Pipe	1	6			3
WLD 132 G.T.A.W. (Tig) Plate/Pipe	1	6			3
WLD 221 G.M.A.W.(MIG) Pipe	1	6			3
WLD 231 G.T.A.W. (Tig) Pipe	1	6			3
WLD 151 Fabrication I	2	6			4
					38

General Education Core Requirements

	Class	Lab			Credits
*MAT 101 Applied Mathematics I	2	2			3
*ENG 101 Communications Skills	3	0			3
CIS 110 Introduction to Computers	2	2			3
					9
Total Credit Hours					**47**

*Any student who has completed a diploma level general education course must take the appropriate associate degree general education course if he or she chooses to pursue the higher credential.

Welding Technology Certificate (A50420)

Specialization Certificates

The certificates listed below can be earned in the Welding Technology Program (A50420).

For More Information

For more information, call the Program Chair at 704- 330-6686 or the Technical Careers Division at 704- 330-4445, weekdays from 8 a.m. - 5 p.m. Program Counselors can be reached by calling 704- 330-6229 or 6059.

Admissions

- Completion of a High School Diploma or equivalent is encouraged as the foundation of a career in this area.

Welding Technology With a Specialization in S.M.A.W. of Pipe Welding (C50420-C1)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 110 Cutting Processes	1	3			2
WLD 115 S.M.A.W. (Stick) Plate	2	9			5
WLD 116 S.M.A.W. (Stick) Plate/Pipe	1	9			4
WLD 215 S.M.A.W. (Stick) Pipe	1	9			3
WLD 141 Symbols & Specifications	2	2			3
Total Credit Hours					**17**

Welding Technology With a Specialization in Entry Level Welding (C50420-C2)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 110 Cutting Processes	1	3			2
WLD 115 S.M.A.W. (Stick) Plate	2	9			5
WLD 121 G.M.A.W. (Mig) F.C.A.W. Plate	2	6			4
WLD 131 G.T.A.W. (Tig) Plate	2	6			4
WLD 141 Symbols and Specifications	2	2			3
Total Credit Hours					**18**

Welding Technology With a Specialization in Handyman Welding (C50420-C3)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 110 Cutting Processes	1	3			2
WLD 115 S.M.A.W. (Stick) Plate	2	9			5
WLD 121 G.M.A.W. (Mig) F.C.A.W. Plate	2	6			4
WLD 141 Symbols and Specifications	2	2			3
Total Credit Hours					**14**

Welding Technology With a Specialization in Inert Gas Welding (C50420-C4)

Major and Related Course Requirements

	Class	Lab	Hours Clinical	Work Exper.	Credits
WLD 110 Cutting Processes	1	3			2
WLD 121 G.M.A.W. (Mig) F.C.A.W. Plate	2	6			4
WLD 131 G.T.A.W. (Tig) Plate	2	6			4
WLD 141 Symbols and Specifications	2	2			3
Total Credit Hours					**13**

Optional General Education Courses For A.A.S. Degree

HUMANITIES/FINE ARTS

Art

ART 111 Art appreciation
ART 114 Art History Survey I
ART 115 Art History Survey II
ART 117 Non-Western Art History

Dance

DAN 110 Dance Appreciation
DAN 211 Dance History
DAN 212 Dance History II

Drama

DRA 111 Theatre Appreciation
DRA 112 Literature of Theatre
DRA 122 Oral Interpretation

Foreign Languages

French

FRE 111 Elementary French I
FRE 112 Elementary French II
FRE 211 Intermediate French I
FRE 212 Intermediate French II
FRE 221 French Conversation

German

GER 111 Elementary German I
GER 112 Elementary German II
GER 211 Intermediate German I
GER 212 Intermediate German II
GER 221 German Conversation

Spanish

SPA 111 Elementary Spanish I
SPA 112 Elementary Spanish II
SPA 211 Intermediate Spanish I
SPA 212 Intermediate Spanish II
SPA 221 Spanish Conversation

Interdisciplinary Humanities

HUM 115 Critical Thinking
HUM 130 Myth In Human Culture
HUM 160 Introduction To Film
HUM 211 Humanities I
HUM 212 Humanities II
HUM 220 Human Values and Meaning

Literature

ENG 231 American Literature I
ENG 232 American Literature II
ENG 241 British Literature I
ENG 242 British Literature II
ENG 251 Western World Literature I
ENG 252 Western World Literature II

Music

MUS 110 Music appreciation
MUS 112 Introduction to Jazz
MUS 213 Opera & Musical Theatre

Philosophy

PHI 220 Western Philosophy I
PHI 221 Western Philosophy II
PHI 230 Introduction To Logic

MATHEMATICS FOR A.A.S. DEGREES

MAT 140 Survey of Mathematics
MAT 155 Statistical Analysis
MAT 161 College Algebra
MAT 171 Precalculus Algebra
MAT 172 Precalculus Trigonometry
MAT 175 Precalculus
MAT 271 Calculus I
MAT 272 Calculus II
MAT 273 Calculus III

SOCIAL/BEHAVIORAL SCIENCES

ANT 210 General Anthropology
ANT 220 Cultural Anthropology
ECO 151 Survey of Economics
ECO 251 Prin of Microeconomics
ECO 252 Prin of Macroeconomics
GEO 111 World Regional Geography
HIS 111 World Civilizations I
HIS 112 World Civilizations II
HIS 131 American History I
HIS 132 American History II
POL 120 American Government
POL 210 Comparative Government
POL 220 International Relations
PSY 150 General Psychology
PSY 241 Developmental Psych
PSY 281 Abnormal Psychology
SOC 210 Introduction to Sociology
SOC 213 Sociology of the Family
SOC 225 Social Diversity
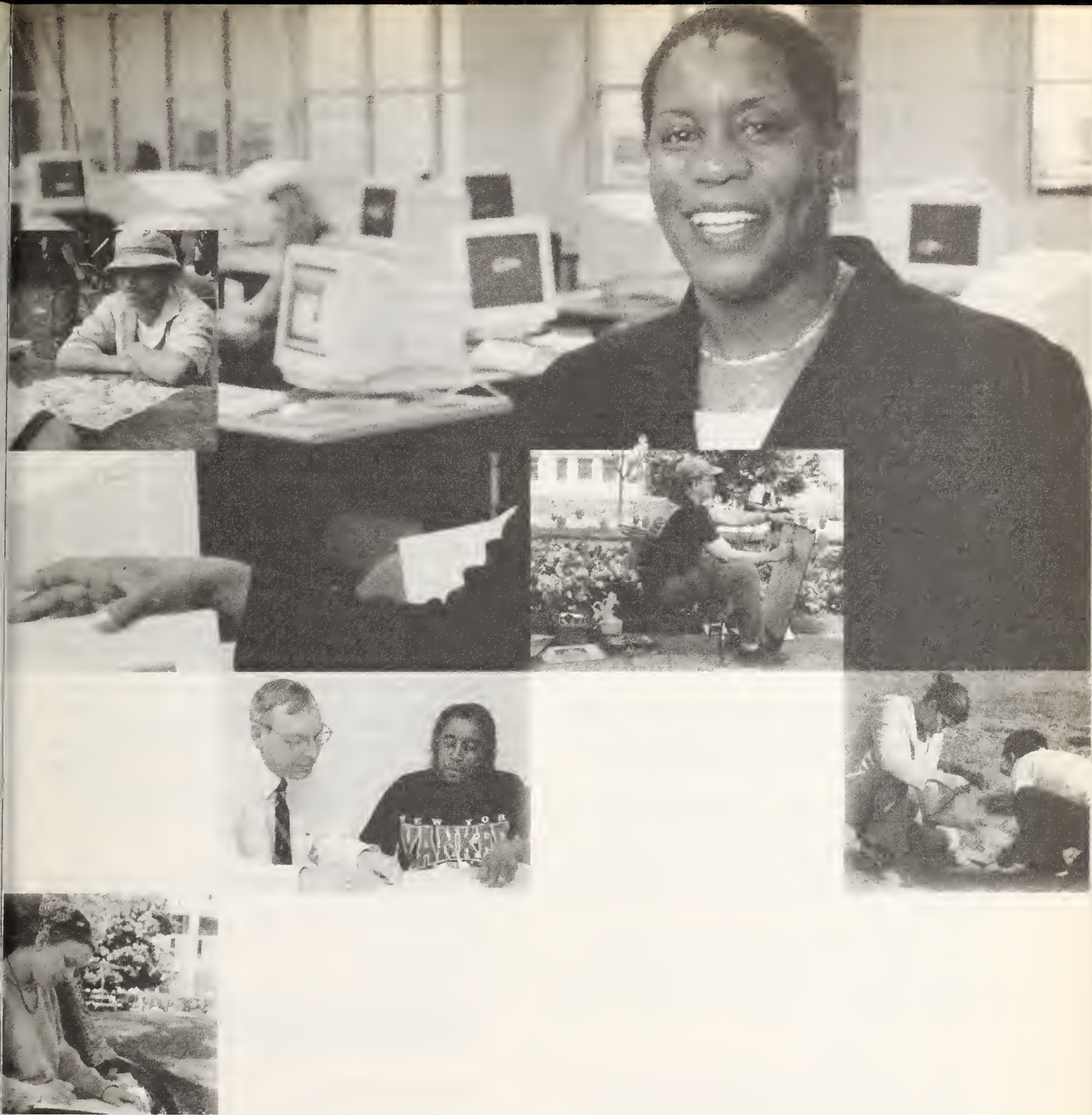
......Associate in General Education Program

General Education Goals for AGE Degrees (A10300)

This program is designed for students who want to take courses to meet a special personal or vocational objective. Students who intend to transfer to another college should seek the AA, AS, or AFA degrees. Students who are interested in a complete career-oriented program should seek an AAS degree.

Degree Awarded

The Associate in General Education Degree is awarded by the College upon completion of 64-65 semester hours.
- Completion of 21 additional semester credit hours of college credit courses if the student has earned another CPCC degree.
- Completion of a minimum of 21 semester credit hours earned at CPCC, 12 of which must be the final credit hours prior to graduation.

For more information

For more information, contact the Program Counselor at (704) 330-6954, weekdays 8 a.m. - 5 p.m.

Admissions

Official copies of high school and all other college/university transcripts must be on file in the Student Records Office.

CPCC GENERAL EDUCATION GOALS

Through its general education program, Central Piedmont seeks to provide a high quality of education for its students and to ensure that graduates have the necessary knowledge, skills, and abilities to function effectively in their personal and professional lives.

Central Piedmont Community College defines general education as acquiring and integrating the general knowledge, intellectual skills, attitudes, and experiences needed by an individual to achieve a level of competency appropriate for a two-year college graduate, preparing for advanced work and life-long learning, and functioning more fully as a person and as a member of society.

The following goals identify the essence of a general education. Although some competencies may be achieved primarily through successful completion of particular courses, students should have the opportunity to develop and use many of these skills throughout their programs.

I. COMMUNICATIONS

Students should be able to communicate orally and in writing clearly and coherently, read with understanding, and listen perceptively, all at a level appropriate to their degrees or their occupational goals. They should understand how to locate, evaluate, and present information effectively to an appropriate audience. These goals incorporate the ability to think critically or analytically so that students can evaluate and communicate ideas.

II. NATURAL SCIENCES/MATHEMATICAL SKILLS

Students should understand the basic principles of science which govern the physical and natural world. Students should be able to apply mathematical concepts and skills to interpret, understand, and communicate quantitative data in their personal, professional, and academic endeavors.

III. TECHNOLOGY

Students should acquire the skills to use computers in their personal and professional lives, and they should be sensitive to the impact of technology on the individual, on society, and on the natural environment.

IV. PROBLEM SOLVING AND CRITICAL THINKING

Students should develop critical thinking skills that will allow them to analyze a variety of problems, select or create possible solutions, assess the impact of the solutions, and make informed judgments.

V. HUMANITIES AND FINE ARTS

Students should develop an awareness of the humanities and fine arts to broaden their understanding of their own culture and the cultures of other places and times. They should also have the opportunity to recognize and develop their own creative skills.

VI. INTERNATIONAL AWARENESS

Students should recognize the interdependence of all the world's peoples and demonstrate an awareness and understanding of the similarities and differences among the world's societies and cultures.

VII. SOCIAL/BEHAVIORAL SCIENCES (Self and Society)

Students should demonstrate an increased awareness of their own values, beliefs, and behaviors as well as the values, beliefs and behaviors of others. Through knowledge and experience, students should develop their abilities to work as members of groups and work with people who are different from themselves. Students should also have an increased understanding of American culture and society so that they are able to participate more effectively in the political and economic life of the United States. Students should improve their abilities to make decisions about education and employment based on their skills and interests and on the needs of the community.

VIII. PHYSICAL EDUCATION

Central Piedmont Community College believes that college transfer students should have opportunities to participate in physical fitness activities and acquire information and experiences which will promote their physical, mental, and emotional health.

I. GENERAL EDUCATION GOALS - COURSE REQUIREMENTS

Goal I Communications

Students must successfully complete two ENG courses and one COM course from the following:

ENG 111 Expository Writing
and
ENG 112 Argument-Based Research
or
ENG 113 Literature-Based Research
or
ENG 114 Professional Research and Reporting
Any course with a COM prefix.

Goal II Natural Science/Mathematical Skills

Students must successfully complete one science course numbered 110 or higher from the following prefixes:
AST, BIO, CHM, GEL, GEO, PHS, PHY
Students must successfully complete one Math course (MAT) numbered 115 or higher.

Goal III Technology

Students must successfully complete one computer course (CIS or CSC) numbered 110 or higher or any computer-based course approved by the Dean of Arts and Sciences; or a student may demonstrate basic computer competencies through other course work or testing. The Division Director of Computer and Office Information Systems will determine equivalent competency.

Goal IV Problem Solving and Critical Thinking

Problem solving and critical thinking are incorporated throughout the curriculum at Central Piedmont Community College.

Goal V Humanities and Fine Arts

Students must successfully complete one humanities/fine arts course 110 or higher from the following prefixes:
ASL, ART, DAN, DRA, FRE, GER, SPA, HUM, ENG (125 or higher), MUS, PHI

Goal VI Goal VII International Awareness

International awareness is incorporated throughout the curriculum at Central Piedmont Community College.

Goal VII Social/Behavioral Sciences (Self and Society)

Students must successfully complete one course numbered 110 or higher from the following prefixes:
ANT, ECO, GEO, HIS, POL, PSY, SOC

Goal VIII Health/Physical Education

Students must successfully complete at least 2 semester hours credit in Physical Education (PED) or Health Education (HEA).

II. ELECTIVES

Students must complete the 64 SHC requirement with electives chosen from 110 or higher level courses. A maximum of 7 SHC in health, physical education, college orientation and/or study skills may be included as other required hours.

ADDITIONAL OPPORTUNITIES

Cooperative Education

When approved by the Faculty Co-op Coordinator, a maximum of 4 Cooperative Education work experience credits may be counted toward the degree.

Educational and Career Planning

Educational and career counseling are available to all students at CPCC through Counseling and Advisement Services. Students who desire more extensive educational and occupational planning may take either or both of these courses as electives:
ACA 118 College Study Skills
ACA 120 Career Assessment

Associate in General Education Program
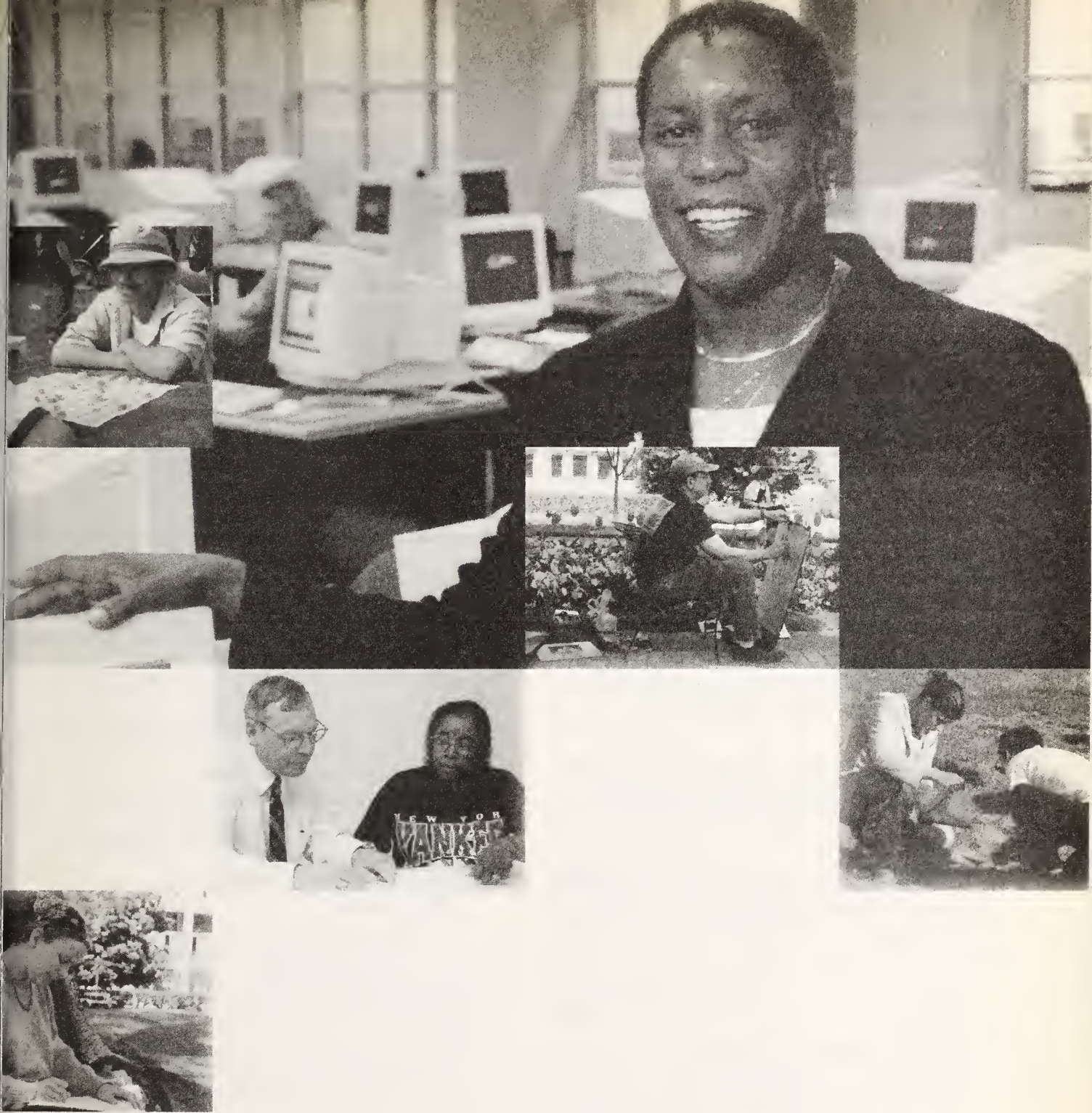
College Transfer Programs

College Transfer Programs

Associate in Arts (A.A.) (A10100)

Associate in Science (A.S.) (A10400)

Associate in Fine Arts Degree (A.F.A.) (A10200)

Central Piedmont offers three degrees designed for college transfer – the Associate in Arts (A.A.), the Associate in Science (A.S.) and the Associate in Fine Arts (A.F.A.). The A.A. degree emphasizes the liberal arts; the Associate in Science degree emphasizes science and mathematics; the Associate in Fine Arts degree includes separate concentrations in art, dance, or music.

The degree programs offer courses comparable to the freshman and sophomore levels at four-year colleges and universities. Students who want to transfer to senior institutions should work with CPCC college transfer counselors. The transfer counselors will help select the degree and the courses which will best meet the student's interests and the requirements of transfer institutions. Because course requirements vary among four-year colleges and universities, students should obtain a current catalog from the school they plan to attend and discuss their plans with a representative from that institution.

Students seeking to transfer to one of the UNC system institutions should visit the following Web sites: **www.ga.unc.edu and www.ga.unc.edu/student_info/.**

For More Information

Call the Information Center - (704) 330-2722 or visit the Welcome Center in the Garinger Building.

Admissions

Students must have a high school diploma or its equivalent. Students must take placement tests in English, mathematics, and reading to enroll in English and mathematics courses.

General Requirements

Students must complete a minimum of 64 semester hours of transfer courses including the required general education courses. A minimum of 21 semester credit hours must be earned at CPCC; 12 of them must be the final credit hours prior to graduation. (Exceptions can be made with the approval of the Dean of Arts and Sciences).

If students have earned a CPCC transfer degree, they must earn an additional 21 semester hours of transfer credits to receive a second degree.

CPCC GENERAL EDUCATION GOALS

Through its general education program, Central Piedmont seeks to provide a high quality of education for its students and to ensure that graduates have the necessary knowledge, skills, and abilities to function effectively in their personal and professional lives. Central Piedmont Community College defines general education as acquiring and integrating the general knowledge, intellectual skills, attitudes, and experiences needed by an individual to achieve a level of competency appropriate for a two-year college graduate, preparing for advanced work and life-long learning, and functioning more fully as a person and as a member of society.

The following goals identify the essence of a general education. Although some competencies may be achieved primarily through successful completion of particular courses, students should have the opportunity to develop and use many of these skills throughout their programs.

I. COMMUNICATIONS

Students should be able to communicate orally and in writing clearly and coherently, read with understanding, and listen perceptively, all at a level appropriate to their degrees or their occupational goals. They should understand how to locate, evaluate, and present information effectively to an appropriate audience. These goals incorporate the ability to think critically or analytically so that students can evaluate and communicate ideas.

II. NATURAL SCIENCES/MATHEMATICAL SKILLS

Students should understand the basic principles of science which govern the physical and natural world. Students should be able to apply mathematical concepts and skills to interpret, understand, and communicate quantitative data in their personal, professional, and academic endeavors.

III. TECHNOLOGY

Students should acquire the skills to use computers in their personal and professional lives, and they should be sensitive to the impact of technology on the individual, on society, and on the natural environment.

IV. PROBLEM SOLVING AND CRITICAL THINKING

Students should develop critical thinking skills that will allow them to analyze a variety of problems, select or create possible solutions, assess the impact of the solutions, and make informed judgments.

V. HUMANITIES AND FINE ARTS

Students should develop an awareness of the humanities and fine arts to broaden their understanding of their own culture and the cultures of other places and times. They should also have the opportunity to recognize and develop their own creative skills.

VI. INTERNATIONAL AWARENESS

Students should recognize the interdependence of all the world's peoples and demonstrate an awareness and understanding of the similarities and differences among the world's societies and cultures.

VII. SOCIAL/BEHAVIORAL SCIENCES
(Self and Society)

Students should demonstrate an increased awareness of their own values, beliefs, and behaviors as well as the values, beliefs and behaviors of others. Through knowledge and experience, students should develop their abilities to work as members of groups and work with people who are different from themselves. Students should also have an increased understanding of American culture and society so that they are able to participate more effectively in the political and economic life of the United States. Students should improve their abilities to make decisions about education and employment based on their skills and interests and on the needs of the community.

VIII. PHYSICAL EDUCATION

Central Piedmont Community College believes that college transfer students should have opportunities to participate in physical fitness activities and acquire information and experiences which will promote their physical, mental, and emotional health.

Comprehensive Articulation Agreement (CAA)

The governing boards of the North Carolina Community College System and the University of North Carolina, in response to a legislative mandate, have approved a Comprehensive Articulation Agreement (CAA) which addressed in a system-wide manner the transfer of students from the community colleges to the universities. This CAA is for the A.A. and A.S. degrees. It specifies a general education transfer core of 44 semester hours and reflects the distribution of discipline areas commonly included in institution-wide, lower division, general education requirements for the baccalaureate degree. The transfer core specifies study areas and semester hours credit (SHC) distributions for each. They are English composition (6 SHC), humanities/fine arts (12 SHC), social/ behavioral sciences (12 SHC), and natural sciences/mathematics (14 SHC with sciences 8 SHC and math 6 SHC). Community colleges and universities have identified community college courses appropriate to a general education transfer core. Those courses are listed in this section of the catalog.

The 44 hour General Education transfer core, if completed successfully with grade C or better in each course, will transfer as a block across the community college system and to UNC institutions. No D grades will transfer.

Community college graduates receiving the A.A. or A.S. degree who have successfully completed the general education transfer core will be considered to have fulfilled the institution-wide, lower division, general education requirements of the receiving UNC institution and will have achieved junior status. *Completion of the A.A. or A.S. degree, however, does not constitute admission to a North Carolina state university or to any professional school or specific program at a university.* In addition, students must meet the specific senior institution's foreign language and/or health and physical education requirements. These requirements, if applicable, may be completed prior to or after transfer to the senior institution. Also, 3 SHC in speech/communications can be substituted for 3 SHC in the humanities/fine arts requirements; however, speech/communications cannot substitute for the literature requirement in the humanities/fine arts category.

Community college students that have completed the 44 SHC general education core with the proper distribution of hours, but have not completed the associate degree, will be considered to have fulfilled the institution-wide, lower division general education requirements of the receiving UNC institution. To be eligible a student must have an overall GPA of 2.0 on a 4.0 scale at the time of transfer and a grade of "C" or better on all general education core courses.

Community college students that have not completed the general education core will have their transcripts evaluated on a course-by-course basis by the receiving institution.

Private Institutions Endorsing the Comprehensive Articulation Agreement

At the time of publishing, the following private colleges and universities have agreed to participate in the Comprehensive Articulation Agreement with the North Carolina Community College System:

Barber-Scotia College	Livingston College
Barton College	Mars Hhill College
Belmont Abbey College	Mount Olive College
Bennett College	Pfeiffer University
Campbell University	Queens College
Catawba College	Saint Andrews College
Chowan College	Wingate University
Johnson C. Smith University	

College Transfer Degree Requirements

Students electing to participate in the CAA must also meet CPCC's specific General Education requirements. In order to meet these requirements the student must elect and complete:

> one communication course (COM)
> one computer course (CIS/CSC)
> 2 SHC in physical education (PED)

STUDENTS PARTICIPATING IN THE CAA

CURRICULUM STANDARDS

ASSOCIATE IN ARTS (A10100) AND ASSOCIATE IN SCIENCE (A10400) DEGREE PROGRAMS

The Associate in Arts and Associate in Science degrees shall be granted for planned programs of study consisting of a minimum of 64 and a maximum of 65 semester hours of college transfer courses. # Within the degree program, the institution shall include opportunities for achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and the basic use of computers (SACS Criteria, 4.2.2).

> # Courses are approved for transfer through the Comprehensive Articulation Agreement. Courses may also transfer through bilateral agreements between institutions. Courses offered through bilateral agreements **may not** transfer to all receiving institutions.

GENERAL EDUCATION CORE (44 SHC) *

The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC)

Humanities/Fine Arts (12 SHC)**

Four courses from at least **three** of the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion. **At least one course must be a literature course.**

Social/Behavioral Sciences (12 SHC)

Four courses from at least **three** of the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology. **At least one course must be a history course.**

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC):
Associate in Arts: Two courses, including accompanying laboratory work, from the biological and physical science disciplines are required.

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Associate in Science: A two-course sequence in general biology, general chemistry, or general physics is required.
Mathematics (6 SHC):
Associate in Arts: At least one course in introductory mathematics is required; the other course may be selected from among other quantitative subjects, such as computer science and statistics.
Associate in Science: At least one course in mathematics at the precalculus algebra level or above is required; the other course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science and statistics.

OTHER REQUIRED HOURS (20-21 SHC)*

Courses in health, physical education, college orientation, and/or study skills may be included as other required hours. Work experience may be included up to 1 SHC for career exploration.

Associate in Arts

A minimum of 20 SHC of college transfer general education, approved electives, and/or pre-major courses is required beyond the 44 SHC core.

Associate in Science

A minimum of 14 SHC of college transfer courses in mathematics, natural sciences, computer science, and/or other pre-major courses is required beyond the 44 SHC core. The remaining hours may be selected from approved electives and/or pre-major courses .

Total Semester Hours Credit (SHC) in Program: 64-65

* Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
** 3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts. Speech/Communication may not substitute for the literature requirement.

CAA College Transfer Core Courses

The following list of courses (44 SHC) **must be** used to satisfy the 44 hour General Education Core requirements. *SUBSTITUTIONS FROM OTHER LISTS ARE NOT ALLOWED.*

Associate in Arts (AA)
Associate in Science (AS)

ENGLISH COMPOSITION (6 SHC) (CPCC Goal I)
ENG 111 Expository Writing
and one of the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research & Reporting

Associate in Arts (AA)
Associate in Science (AS)

HUMANITIES/FINE ARTS (12 SHC**) (CPCC Goal V)
FOUR courses from at least **THREE** of the following discipline areas are required:
Art, Dance, Drama, Foreign Languages, Inter-disciplinary Humanities, Literature, Music, Philosophy and Religion. At least one must be a literature course.

ART
ART 111 Art Appreciation
ART 114 Art History Survey I
ART 115 Art History Survey II
ART 117 Non-Western Art History

DANCE
DAN 110 Dance Appreciation
DAN 211 Dance History I
DAN 212 Dance History II
DRAMA
DRA 111 Theatre Appreciation
DRA 112 Literature of Theatre
DRA 122 Oral Interpretation

FOREIGN LANGUAGES
FRE 111 Elementary French I
FRE 112 Elementary French II
FRE 211 Intermediate French I
FRE 212 Intermediate French II
GER 111 Elementary German I
GER 112 Elementary German II
GER 211 Intermediate German I
GER 212 Intermediate German II
SPA 111 Elementary Spanish I
SPA 112 Elementary Spanish II
SPA 211 Intermediate Spanish I
SPA 212 Intermediate Spanish II

INTERDISCIPLINARY HUMANITIES
HUM 130 Myth In Human Culture
HUM 160 Introduction To Film
HUM 211 Humanities I
HUM 212 Humanities II
HUM 220 Human Values and Meaning

LITERATURE (one is required)
ENG 231 American Literature I
ENG 232 American Literature II
ENG 241 British Literature I
ENG 242 British Literature II
ENG 251 Western World Literature I
ENG 252 Western World Literature II

MUSIC
MUS 110 Music Appreciation
MUS 112 Introduction to Jazz
MUS 213 Opera and Musical Theater

PHILOSOPHY
PHI 220 Western Philosophy I
PHI 221 Western Philosophy II

**Three SHC in Speech/Communications may be substituted for 3 SHC in the above Humanities/Fine Arts list. Speech/Communications may not substitute for the literature requirement.

SPEECH/COMMUNICATIONS (CPCC Goal I)
COM 110 Introduction to Communication
COM 120 Interpersonal Communications
COM 231 Public Speaking

Associate in Arts (AA)
Associate in Science (AS)

SOCIAL/BEHAVIORAL SCIENCES (12 SHC)
(CPCC Goal VII)

FOUR Courses from at least **THREE** of the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology. At least one must be History course.

ANTHROPOLOGY
ANT 210 General Anthropology
ANT 220 Cultural Anthropology

ECONOMICS
ECO 151 Survey of Economics
ECO 251 Principles of Microeconomics
ECO 252 Principles of Macroeconomics

GEOGRAPHY
GEO 111 World Regional Geography

HISTORY (One is required)
HIS 111 World Civilization I
HIS 112 World Civilization II
HIS 131 American History I
HIS 132 American History II

POLITICAL SCIENCE
POL 120 American Government
POL 210 Comparative Government
POL 220 International Relations

PSYCHOLOGY
PSY 150 General Psychology
PSY 241 Developmental Psychology
PSY 281 Abnormal Psychology

SOCIOLOGY
SOC 210 Introduction to Sociology
SOC 213 Sociology of the Family
SOC 225 Social Diversity

Associate in Arts (AA)
Associate in Science (AS)

NATURAL SCIENCES/MATHEMATICS (14 SHC) (CPCC Goal II)

NATURAL SCIENCES FOR ASSOCIATE IN ARTS (AA): Two (2) courses, including accompanying laboratory work from the Biological and Physical Science disciplines are required:

BIOLOGICAL SCIENCES
BIO 110 Principles of Biology
BIO 111 General Biology I
BIO 112 General Biology II
BIO 120 Introductory Botany
BIO 130 Introductory Zoology

PHYSICAL SCIENCES

ASTRONOMY
AST 111 Descriptive Astronomy
AST 111A Descriptive Astronomy Lab

CHEMISTRY
CHM 131 Introduction to Chemistry
CHM 131A Introduction to Chemistry Laboratory

CHM 132 Organic and Biochemistry
CHM 151 General Chemistry I
CHM 152 General Chemistry II

GEOLOGY
GEL 113 Historical Geology
GEL 120 Physical Geology

PHYSICS
PHY 110 Conceptual Physics
PHY 110A Conceptual Physics Laboratory
PHY 151 College Physics I
PHY 152 College Physics II
PHY 251 General Physics I
PHY 252 General Physics II

NATURAL SCIENCES FOR ASSOCIATE IN SCIENCE (AS): A two (2) course sequence in General Biology, General Chemistry, or General Physics is required.

BIOLOGY
BIO 111 General Biology I
   and
BIO 112 General Biology II

CHEMISTRY
CHM 151 General Chemistry I
   and
CHM 152 General Chemistry II

PHYSICS
PHY 151 College Physics I
   and
PHY 152 College Physics II
   or
PHY 251 General Physics I
   and
PHY 252 General Physics II

MATHEMATICS FOR ASSOCIATE IN ARTS (AA): At least one course in introductory mathematics is required; the other course may be selected form other quantitative subjects, such as computer science and statistics.

MATHEMATICS (One Required)
MAT 140 Survey of Mathematics
MAT 161 College Algebra
MAT 171 Precalculus Algebra
MAT 172 Precalculus Trigonometry
MAT 175 Precalculus
MAT 263 Brief Calculus
MAT 271 Calculus I
MAT 272 Calculus II
MAT 273 Calculus III

QUANTITATIVE OPTIONS (CPCC Goal III)

COMPUTER SCIENCE
CIS 110 Introduction to Computers
CIS 115 Introduction to Programming and Logic

STATISTICS
MAT 155 Statistical Analysis

MATHEMATICS FOR ASSOCIATE IN SCIENCE (AS): At least one (1) course in mathematics at the precalculus algebra level or above is required, the other course may be a higher level mathematics course or

may be selected from among other quantitative subjects, such as computer science and statistics.

MATHEMATICS (ONE (1) COURSE REQUIRED)
MAT 171 Precalculus Algebra
MAT 172 Precalculus Trigonometry
MAT 175 Precalculus
MAT 263 Brief Calculus
MAT 271 Calculus I
MAT 272 Calculus II
MAT 273 Calculus III

QUANTITATIVE OPTIONS (CPCC Goal III)

COMPUTER SCIENCE
CIS 110 Introduction to Computers
CIS 115 Introduction to Programming and Logic

STATISTICS
MAT 155 Statistical Analysis

Pre-Major Agreements

By legislative mandate, joint academic disciplinary committees from UNC institutions and the N.C. Community College System have developed system-wide guidelines (Pre-Major Agreements) for community college curricula that will prepare students for selected majors at the baccalaureate level. Pre-Major Articulation Agreements for the A.A., A.S., and A.F.A. degrees that have been developed and approved to date are:

Associate in Arts (A10100)

Title	Code
Art Education	A1010A
Business Administration	A1010B
Business Education and Marketing Education	A1010C
Criminal Justice	A1010D
Education (Elementary, Middle, Special)	A1010P
English	A1010E
English Education	A1010F
Health Education	A1010G
History	A1010H
Nursing	A1010I
Physical Education	A1010J
Political Science	A1010K
Psychology	A1010L
Social Science Secondary Education	A1010M
Social Work	A1010Q
Sociology	A1010N
Speech/Communications	A1010O

Associate in Science (A10400)

Title	Code
Chemistry and Chemistry Education	A1040B
Computer Science	A1040C
Engineering	A1040D
Mathematics	A1040E
Mathematics Education	A1040F

Associate in Fine Arts (A10200)

Title	Code
Art	A1020A
Music and Music Education	A1020D

Pre-Major Articulation Agreements

The following templates* have been developed by university and community college faculty as a blueprint guiding community colleges in developing programs for students who intend to major in one of the pre-majors listed above. Students who successfully complete one of these courses of study and who meet the requirements for admission to the university are eligible to apply for admission to the major with junior standing.

There are courses listed in the following templates that are not offerred at CPCC; however, CPCC does offer the minimum course requirement for each pre-major listed in this catalog.

Pre-Major Associate in Fine Arts Articulation Agreement: Art (A1020A)

GENERAL EDUCATION CORE (28 SHC) * The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC)

Humanities/Fine Arts (6 SHC**) Select **two** courses from **two** of the followng discipline areas: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion. **One course must be a literature course.**

Social/Behavioral Sciences (9 SHC) Select **three** courses from **three** of the following discipline areas: anthropology, economics, geography, history, political science, psychology, and sociology. **One course must be a history course.**

Natural Sciences/Mathematics (7 SHC)
Natural Sciences (4 SHC): Select one course, including accompanying laboratory work, from among the biological and physical science disciplines.

Mathematics (3 SHC): Select one course in introductory mathematics (college algebra, trigonometry, calculus, etc.)

OTHER REQUIRED HOURS (36-37 SHC)* Courses in health, physical education, college orientation, and/or study skills may be included as other required hours. Work experience may be included up to 1 SHC for career exploration. If a two- or three-dimensional studio course is to transfer as a pre-major course, it must have ART 121 or ART 122 respectively as a prerequisite.
The following courses are required (15 SHC):
ART 114 Art History Survey I (3 SHC)
ART 115 Art History Survey II (3 SHC)
ART 121 Design I (3 SHC)
ART 122 Design II (3 SHC)
ART 131 Drawing I (3 SHC)

ELECTIVES (21 SHC from the following):
ART 116 Survey of American Art (3 SHC)
ART 117 Non-Western Art History (3 SHC)
ART 132 Drawing II (3 SHC)

ART 135 Figure Drawing I (3 SHC)
ART 171 Computer Art I (3 SHC)
ART 222 Wood Design I (3 SHC)
ART 223 Wood Design II (3 SHC)
ART 231 Printmaking I (3 SHC)
ART 232 Printmaking II (3 SHC)
ART 235 Figure Drawing II (3 SHC)
ART 240 Painting I (3 SHC)
ART 241 Painting II (3 SHC)
ART 245 Metals I (3 SHC) *or*
ART 246 Metals II (3 SHC) *or*
ART 247 Jewelry I (3 SHC)
ART 248 Jewelry II (3 SHC)
ART 250 Surface Design: Textiles (3 SHC)
ART 251 Weaving I (3 SHC)
ART 252 Weaving II (3 SHC)
ART 261 Photography I (3 SHC)
ART 262 Photography II (3 SHC)
ART 263 Color Photography (3 SHC)
ART 271 Computer Art II (3 SHC)
ART 281 Sculpture I (3 SHC)
ART 282 Sculpture II (3 SHC)
ART 283 Ceramics I (3 SHC)
ART 284 Ceramics II (3 SHC)
ART 289 Museum Study (3 SHC)
Studio art courses must meet the following criteria:
• 6 contact hours for each 3 credit studio class
• All two-dimensional studio art classes, except ART 131 Drawing I, must require a prerequisite of ART 121 Design I
• All three-dimensional studio art classes must require a prerequisite of ART 122 Design II

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65
   *Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
   **3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts. Speech/Communication may not substitute for the literature requirement.

Application to a University

   Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Validation of the level of achievement in studio course work may be determined through portfolio review at the receiving institution. Upon successful completion of the associate in fine arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Art will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, WCU, WSSU.

Admission to the Major

   Grade point average requirements vary and admission is competitive across the several programs in Art. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and PRAXIS II.

Articulation Agreement: Art Education (A1010A)

   GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.
   English Composition (6 SHC) Two English composition courses are required.
   English 111, Expository Writing, **is required** as the first composition course.
   The second composition course must be selected from the following:
      ENG 112 Argument-Based Research
      ENG 113 Literature-Based Research
      ENG 114 Professional Research and Reporting

   Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required
   One course must be a **literature** course.
   The following courses are required (6 SHC)
   ART 114 Art History Survey I (3 SHC)
   ART 115 Art History Survey II (3 SHC)
   One additional course from the following discipline areas is required: music, drama, dance, foreign languages, interdisciplinary humanities, philosophy, and religion.

   Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.
   One course must be a **history** course.
   Three additional courses from the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology.

   Natural Sciences/Mathematics (14 SHC)
   Natural Sciences (8 SHC): Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

   Mathematics (6 SHC): Two courses are required.
   One course must be in introductory mathematics (college algebra. trigonometry, calculus, etc.).
   The second course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).

   OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

   The following courses are required (9 SHC):
   ART 121 Design I (3SHC)
   ART 122 Design II (3 SHC)
   ART 131 Drawing I (3 SHC)
   11 additional hours of approved college transfer courses are required.
   To satisfy this requirement, two of the following courses are recommended.
   ART 132 Drawing II (3 SHC)
   ART 171 Computer Art I (3 SHC)
   ART 231 Printmaking I (3 SHC)
   ART 240 Painting I (3 SHC)
   ART 283 Ceramics I (3 SHC)
   ART 247 Jewelry I (3 SHC) or ART 245 Metals I (3 SHC)

ART 251 Weaving I (3 SHC) or ART 250 Surface Design: Textiles (3 SHC)
ART 261 Photography I (3 SHC)
(ART 131 is a prerequisite for the following courses.)
ART 135 Fig Drw I (3 SHC) or ART 222 Wd Design I (3 SHC)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65
  *Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
  **SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
  Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Art Education will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, UNC-A, UNC-C, UNC-G, UNC-P, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Art Education. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Arts Articulation Agreement: Business Administration (A1010B)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.
English 111, Expository Writing, **is required** as the first composition course.
The second composition course must be selected from the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required
One course must be a **literature** course.
Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.
One course must be a **history** course.

Three additional courses from the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology.
The following courses are recommended:
POL 120 American Government (3 SHC)
PSY 150 General Psychology (3 SHC)
SOC 210 Introduction to Sociology (3 SHC)

Natural Sciences/Mathematics (14-16 SHC)
Natural Sciences (8 SHC): Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6-8 SHC):
The following courses are required:
choose one:
MAT 161 College Algebra (3 SHC) or
MAT 171 Precalculus Algebra (3 SHC) or
MAT 175 Precalculus (4 SHC)
choose one:
MAT 263 Brief Calculus (3 SHC) or
MAT 271 Calculus I (4 SHC)

OTHER REQUIRED HOURS (20 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.
The following courses are required (17 SHC):
ACC 120 Principles of Accounting I (4 SHC)
ACC 121 Principles of Accounting II (4 SHC)
CIS 110 Introduction to Computers (3 SHC)
ECO 251 Principles of Microeconomics (3SHC)
ECO 252 Principles of Macroeconomics (3 SHC)
One of the following is required (3 SHC):
BUS 228 Business Statistics (3 SHC) or
MAT 155 Statistical Analysis (3 SHC)
TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

  *Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
  **3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
  Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Business Administration will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Business Administration.

Pre-Major Associate in Arts Articulation Agreement: Business Education and Marketing Education (A1010C)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required
One course must be a **literature** course.
Three additional courses from the following discipline areas are required: music, drama, dance, foreign languages, interdisciplinary humanities, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.
One course must be a **history** course.
The following course is required:
ECO 251 Principles of Microeconomics (3SHC)
Two courses from the following discipline areas are required, to include at least one additional discipline: anthropology, economics, geography, history, political science, psychology, and sociology
The following courses are recommended:
PSY 150 General Psychology (3 SHC)
SOC 210 Introduction to Sociology (3 SHC)

Natural Sciences/Mathematics (14-15 SHC)
Natural Sciences (8 SHC): Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6-7 SHC): Two courses are required.
The following course is required:
CIS 110 Introduction to Computers (3 SHC)
One of the following courses is required:
MAT 161 College Algebra (3 SHC) or
MAT 171 Precalculus Algebra (3 SHC) or
MAT 175 Precalculus (4 SHC)

OTHER REQUIRED HOURS (19-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (7 SHC):
ACC 120 Principles of Accounting I (4 SHC)
ECO 252 Principles of Macroeconomics (3 SHC)
One of the following courses is required (3 SHC):
CIS 115 Introduction to Programming & Logic (3 SHC)
CSC 134 C++ Programming (3 SHC) or other programming language

9-10 additional hours of approved college transfer courses are required to total 64 SHC of transferable courses.
Three of the following courses are recommended (select three):
ACA 121 Principles of Accounting II (4 SHC)
BUS 110 Introduction to Business (3 SHC)
Bus 115 Business Law I (3 SHC)
BUS 228 Bus Stat (3 SHC) or MAT 155 Stat Analysis (3 SHC)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree:
Business Education: ASU, ECU, ECSU, FSU, NCA&T, NCSU, UNC-G, WCU
Marketing Education: ASU, ECU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-C, UNC-G, UNC-W, WCU

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Business Education. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Science Articulation Agreement: Chemistry and Chemistry Education (A1040B)

Students entering the Pre-Chemistry Associate in Science Degree Program must demonstrate competency in or complete the prerequisites required for MAT 271, Calculus I.
GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Science degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.
English Composition (6 SHC) Two English composition courses are required.
English 111, Expository Writing, **is required** as the first composition course.
The second composition course must be selected from the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

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One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

Three additional courses from the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology.

The following course is recommended:
PSY 150 General Psychology (3 SHC)

Natural Sciences/Mathematics (16 SHC)
Natural Sciences (8 SHC):
The following physics **sequence is required:**
PHY 251 General Physics I (4 SHC)
PHY 252 General Physics II (4 SHC)

Mathematics (8 SHC):
The following courses **are required:**
MAT 271 Calculus I (4 SHC)
MAT 272 Calculus II (4 SHC)

OTHER REQUIRED HOURS (18-19 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (16 SHC):
CHM 151 General Chemistry I (4 SHC)
CHM 152 General Chemistry II (4 SHC)
CHM 251 Organic Chemistry I (4 SHC)
CHM 252 Organic Chemistry II (4 SHC)

2-3 additional hours of approved college transfer courses are required to total 64 SHC of transferable courses.

The following course is recommended:
#MAT 273 Calculus III (4 SHC)
#Only students who place into MAT 272 (Calculus II) may choose MAT 273.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in science degree, students who meet the requirements outlined in this pre-major articulation agreement will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree:

Chemistry: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU

Chemistry Education, Secondary Education: ASU, ECSU, NCA&T, NCCU, UNC-A*, UNC-W

*Certification for Grades K-4; Middle Grades (4-6); Grades 6-9; Secondary Level.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Chemistry and Chemistry Education. Admission to teach licensure programs requires satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Science Articulation Agreement: Computer Science (A1040C)

Students entering the Computer Science Associate in Science Degree Program must demonstrate competency in or complete the prerequisites required for MAT 271, Calculus I.

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Science degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

One of the following courses is required to satisfy the second English composition requirement:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
(ENG 113 is recommended to satisfy this requirement.)

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

Three additional courses from the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology.

Natural Sciences/Mathematics (16 SHC)
Natural Sciences (8 SHC):
The following physics **sequence is required:**
PHY 251 General Physics I (4 SHC)
PHY 252 General Physics II (4 SHC)

Mathematics (8 SHC):
The following courses **are required:**
MAT 271 Calculus I (4 SHC)
MAT 272 Calculus II (4 SHC)

Other Required Hours (18-19 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (11 SHC):
CSC 120 Computing Fundamentals I (4 SHC)
CSC 130 Computing Fundamentals II (4 SHC)
MAT 167 Discrete Mathematics (3 SHC)

7-8 additional hours of approved college transfer courses are required to total 64 SHC of transferable courses.

The following course is recommended:
CSC 220 Machine Implem of Algor (4 SHC)
BIO 111 Gen Biol I (4 SHC) or CHM 151 Gen Chem I (4 SHC) or MAT 280 Lin Alg (3 SHC)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in science degree, students who meet the requirements outlined in this pre-major articulation agreement for Computer Science will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Computer Science. Computer Science is a rapidly developing field; curriculum requirements change frequently and vary among the programs and tracks at different universities. In choosing courses to meet both general education core requirements and other required hours, students should seek advice based on the program and track into which they desire to transfer. *Students must be proficient in the programming language(s) and programming environment(s) used at the receiving institution.*

Pre-Major Associate in Arts Articulation Agreement: Criminal Justice (A1010D)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.
English Composition (6 SHC) Two English composition courses are required.
English 111, Expository Writing, **is required** as the first composition course.
One of the following courses is required to satisfy the second English composition requirement:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required
One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.
One course must be a **history** course.
The following courses are required:
POL 120 American Government (3 SHC)
PSY 150 General Psychology (3 SHC)
SOC 210 Introduction to Sociology (3 SHC)
Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC):
Two courses from the biological and physical science disciplines, including accompany laboratory work, are required.

Mathematics (6 SHC):
One course must be introductory mathematics (college algebra, trigonometry, calculus, etc.).
The following course is recommended to satisfy the second mathematics requirement:
MAT 155 Statistical Analysis (3 SHC)

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.
The following courses are required (9 SHC):
CJC 111 Introduction to Criminal Justice (3 SHC)
CJC 121 Law Enforcement Operations (3 SHC)
CJC 141 Corrections (3 SHC)
11 additional hours of approved college transfer courses are required.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
*Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Criminal Justice will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCCU, NCSU, UNC-C, UNC-P, UNC-W, WCU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Criminal Justice.

Pre-Major Associate in Science Articulation Agreement: Engineering (A1040D)

Students entering the Pre-Engineering Associate in Science Degree Program must demonstrate competency in or complete the prerequisites required for MAT 271, Calculus I.

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Science degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

One of the following courses is required to satisfy the second English composition requirement:

ENG 112 Argument-Based Research

ENG 113 Literature-Based Research

(ENG 113 is recommended to satisfy this requirement.)

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course. One of the following is required to satisfy the literature requirement: ENG 231, 232, 241, 242, 251 or 252.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

The following courses are recommended:

FRE, GER, or SPA 111 Elementary Foreign Language I (3 SHC)

FRE, GER, or SPA 112 Elementary Foreign Language II (3 SHC)

HUM 110 Technology and Society (3 SHC)

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One of the following history sequences is required:

HIS 111 & 112 World Civilizations I & II (6 SHC) or

HIS 131 & 132 American History I & II (6 SHC)

(HIS 111 & 112 is recommended to satisfy the history sequence requirement.)

One of the following courses is required:

ECO 251 Principles of Microeconomics (3 SHC) or

ECO 252 Principles of Macroeconomics (3 SHC)

One additional course from one of the following discipline areas is required: anthropology, geography, political science, psychology, and sociology.

Natural Sciences/Mathematics (16 SHC)

Natural Sciences (8 SHC):

The following physics **sequence is required:**

PHY 251 General Physics I (4 SHC)

PHY 252 General Physics II (4 SHC)

Mathematics (8 SHC):

Two mathematics courses **are required.**

MAT 271 Calculus I (4 SHC)

MAT 272 Calculus II (4 SHC)

OTHER REQUIRED HOURS (18-19 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up

to 1 SHC may be included for career exploration.

The following courses are required (11 SHC):

CHM 151 General Chemistry I (4 SHC)

MAT 273 Calculus III (4 SHC)

MAT 285 Differential Equations (3 SHC)

One of the following courses is required (3 SHC)

CSC 134 C++ Programming (3 SHC) or

CSC 136 FORTRAN Programming (3 SHC)

One of the following courses is required (3-4 SHC). Students should select one of the following courses to complete the program of study, depending on the engineering major selected and the university to which the student plans to transfer:

CHM 152 General Chemistry II (4 SHC)

DFT 170 Engineering Graphics (3 SHC)

** EGR 220 Engineering Statics (3 SHC)

** EGR 225 Engineering Dynamics (3 SHC)

** Colleges currently approved by the Joint Committee on College Transfer Subcommittee on Engineering Transfer to offer statics and dynamics courses may continue to do so, pending approval of the revised semester courses.

A total of 64 SHC of transferable courses is required.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.

Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in science degree, students who meet the requirements outlined in this pre-major articulation agreement for Engineering will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: NCA&T, NCSU, UNC-C

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Engineering. In choosing courses to meet both general education core requirements and other required hours, students should seek advice based on the program and track into which they desire to transfer.

Pre-Major Associate in Arts Articulation Agreement: Elementary Education, Middle Grades Education, and Special Education (A1010P)

GENERAL EDUCATION CORE (44 SHC) *(Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required:

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research

ENG 113 Literature-Based Research

Humanities/Fine Arts (12 SHC) Four courses from three discipline areas are required.

One course must be a **literature** course. Select one course from the following (3 SHC):

ENG 131 Introduction to Literature (3 SHC) or

ENG 231 American Literature (3 SHC) or

ENG 232 American Literature II (3 SHC) or

ENG 233 Major American Writers (3 SHC)

The following course **is required** to substitute for 3 SHC of Humanities/Fine Arts:

COM 231 Public Speaking (3 SHC)

One of the following courses is required (3 SHC):

ART 111 Art Appreciation (3 SHC) or

ART 114 Art History Survey I (3 SHC) or

ART 115 Art History Survey II (3 SHC) or

MUS 110 Music Appreciation (3 SHC)

One additional course from the following discipline areas is required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course. Select one course from the following (3 SHC):

HIS 111 World Civilizations I (3 SHC) or

HIS 112 World Civilizations II (3 SHC)

The following courses are required (6 SHC):

PSY 150 General Psychology (3 SHC)

choose one:

SOC 210 introduction to Sociology (3 SHC) or

SOC 225 Social Diversity (3 SHC)

One additional course from the following discipline areas is required: anthropology, economics, geography, history, political science, psychology, and sociology.

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC):

The following courses are required:

choose one:

BIO 110 Principles of Biology (4 SHC) or

BIO 111 General Biology I (4 SHC)

choose one:

CHM 131 Intro to Chemistry (3 SHC) and CHM 131A Intro to Chemistry Lab (1 SHC) or

CHM 151 General Chemistry I (4 SHC) or

PHY 110 Conceptual Physics (3 SHC) and PHY 110A Conceptual physics Lab (1 SHC) or

PHY 151 College Physics I (4 SHC)

Mathematics (6 SHC):

Two of the following courses are required:

CIS 110 introduction to Computers (3 SHC)

MAT 140 Survey of Mathematics (3 SHC)

MAT 161 (or higher) College Algebra (3 SHC)

Other Required Hours (20-21 SHC) * Colleges may includes courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

* At certain UNC institutions, EDU 116 may fulfill a major requirement; at a majority of institutions it will transfer only as a free elective.

* It is recommended that within the 20 semester hours of "Other Required Hours," pre-education students in Elementary Education, Middle Grades Education, and Special Education select courses that will help meet the mandated academic (second major) concentration. These courses should be selected in conjunction with the requirements at each university, since available academic (second major) concentrations and their specific requirements differ on each campus. In order to be consistent with NC licensure areas, Middle Grades Education students should select courses from up to two (2) of the following areas: Social Sciences, English, Mathematics, Sciences, (Note: UNC-Asheville students major in an academic area and the selected 20 hours should be in sync with their intended major/program.) Typically offered academic concentrations are biology, English, history, mathematics and psychology. The following recommended courses in these concentrations may be taken as general education or as "Other Required Hours."

Recommended Courses for Typical Academic Concentrations

Biology Up to 12 SHC from the following:

BIO 110 Principles of Biology or BIO 111 General Biology I and BIO 112 General Biology II;

BIO 120 Intro. Botany or BIO 130 Intro. Zoo. Or BIO 140 Environ. Bio. And BIO 140A Environ. Bio. Lab;

CHM 151 General Chemistry I

CHM 152 General l Chemistry II

English Up to 6 SHC from the following:

ENG 231 American Lit. I

ENG 232 American Lit. II

ENG 241 British Lit. I

ENG 242 British Lit. II

ENG 273 African-Amer. Lit

ENG 274 Lit. by Women

History

6 SHC from the following should be taken as general education:

HIS 111 World Civilizations I and HIS 112 World Civilizations II or

HIS 121 Western Civilization I and HIS 122 Western Civilization II

6 SHC from the following should be taken as "other required hours:"

HIS 131 American History I and HIS 132 American History II

Mathematics Up to 12 SHC from the following:

MAT 151 Stat. I, MAT 151A Statist. I Lab. Or MAT 155 Statist. Analy., MAT 155A Statist. Analy. Lab;

MAT 172 Precal. Trig., MAT172A Precal. Trig. Lab or MAT 175 Precal., MAT 175A Precalculus Lab;

MAT 271 Calculus I

MAT 272 Calculus II

Psychology Select from:

PSY 150 General Psychology

PSY 237 Social Psychology

PSY 239 Psy. Of Personality

PSY 241 Develop. Psychology

PSY 243 Child Psychology

PSY 246 Adolescent Psychology

PSY 263 Educational Psychology

PSY 275 Health Psychology

PSY 281 Abnormal Psychology

Total Semester Hours Credit (SHC) in Program: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Elementary Education, Middle Grades Education, and Special Education will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: Elementary Education: ASU, ECU, ECSU, FSU, NCA&T, NCCU, UNC-A, UNC-C, UNC-CH, UNC-G, UNC-P, UNC-W, WCU, and WSSU.

Middle Grades Education: ASU, ECU, ECSU, FSU, NCCU, NCSU, UNC-A, UNC-C, UNC-CH, UNC-G, UNC-P, UNC-W, WCU, and WSSU.

Special Education: ASU, ECU, ECSU, NCA&T, UNC-C, UNC-CH, UNC-P, UNC-W, WCU, and WSSU.

Admission to the Major

Grade Point average requirements vary and admission is competitive across the several programs in Elementary Education, Middle Grades Education, and Special Education. Minimum statewide requirements are:
1. Minimum 2.5 grade point average on a 4.0 scale.
2. Satisfactory passing scores as established by the State Board of Education on PRAXIS–PPST-Reading; PPST-Writing; PPST-Math.

Receiving institutions may have additional requirements, prerequisites, and/or proficiencies. Since these vary at receiving institutions, students should review the admission to teach education requirements for the institution(s) they anticipate attending.

Pre-Major Associate in Arts Articulation Agreement: English (A1010E)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

One of the following courses is required to satisfy the second English composition requirement:
ENG 112 Argument-Based Research or
ENG 113 Literature-Based Research

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course. Select one course from the following (3 SHC):
ENG 231 American Literature I (3 SHC) or
ENG 232 American Literature II (3 SHC) or
ENG 241 British Literature I (3 SHC) or
ENG 242 British Literature II (3 SHC) or

Three additional courses from the following discipline areas are required: music art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

One of the following foreign language sequences is recommended:
FRE 111 and 112 Elementary French I & I (6 SHC) or
GER 111 and 112 Elementary German I & II (6 SHC) or
SPA 111 and 112 Elementary Spanish I & II (6 SHC)

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

Three additional courses from one of the following discipline areas is required: anthropology, economics, geography, history, political science, psychology, and sociology.

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC): Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6 SHC): Two courses are required.

One course must be in introductory mathematics (college algebra, trigonometry, calculus, etc.).

The second course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).

Other Required Hours (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

One of the following courses is required (3 SHC):
ENG 231 American Literature I (3 SHC)
ENG 232 American Literature II (3 SHC) or
ENG 241 British Literature I (3 SHC) or
ENG 242 British Literature II (3 SHC) or
17 additional hours of approved college transfer courses are required.

One of the following courses is recommended:
HIS 111 World Civilizations I (3SHC) or
HIS 112 World Civilizations II (3 SHC) or
HIS 131 American History I (3 SHC) or
HIS 132 American History II (3 SHC)

An intermediate foreign language sequence is recommended:
FRE 211 and 212 Intermediate French I & II (6 SHC) or
GER 211 and 212 Intermediate German I & II (6 SHC) or
SPA 211 and 212 Intermediate Spanish I & II (6 SHC)
A total of 64 SHC of transferable courses is required.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for English will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in English.

Pre-Major Associate in Arts Articulation Agreement: English Education (A1010F)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

One of the following courses is required to satisfy the second English composition requirement:
ENG 112 Argument-Based Research or
ENG 113 Literature-Based Research

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

One of the following fine arts courses is recommended:
ART 111 Art Appreciation (3 SHC) or
DAN 110 Dance Appreciation (3 SHC) or
DRA 111 Theatre Appreciation (3 SHC) or
HUM 160 Introduction to Film (3 SHC) or
MUS 110 Music Appreciation (3 SHC)
One of the following foreign language sequences is recommended:
FRE 111 and 112 Elementary French I & II (6 SHC) or
GER 111 and 112 Elementary German I & II (6 SHC) or
SPA 111 and 112 Elementary Spanish I & II (6 SHC)

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.
The following course is required (3 SHC):
PSY 150 General Psychology (3 SHC)
Two additional courses from one of the following discipline areas is required, to include one additional discipline: anthropology, economics, geography, history, political science, psychology, and sociology.

One of the following courses is recommended:
HIS 111 World Civilizations I (3 SHC) or
HIS 112 World Civilizations II (3 SHC) or
HIS 121 Western Civilization I (3 SHC) or
HIS 122 Western Civilization II (3 SHC)

Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC): Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6 SHC): Two mathematics courses are required.

One course must be in introductory mathematics (college algebra, trigonometry, calculus, etc.).

The second course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following course is required (4 SHC):
EDU 116* Introduction to Education (4 SHC)
* At certain UNC institutions, EDU 116 may fulfill a major requirement; at a majority of institutions it will transfer only as a free elective.

16 additional hours of approved college transfer courses are required.

The following course is recommended:
COM 231 Public Speaking (3 SHC)
An intermediate foreign language sequence is recommended:
FRE 211 and 212 Intermediate French I & II (6 SHC) or
GER 211 and 212 Intermediate German I & II (6 SHC) or
SPA 211 and 212 Intermediate Spanish I & II (6 SHC)
One of the following courses with multicultural or gender emphasis is recommended:
ENG 273 African-American Literature (3 SHC) or
ENG 274 Literature by Women (3 SHC) or
HIS 221 African-American History (3 SHC) or
SOC 225 Social Diversity (3 SCH) or
Two additional 200-level survey courses in literature are recommended.
A total of 64 SHC of transferable courses is required.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for English Education will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in English Education. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Arts Articulation Agreement: Health Education (A1010G)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

The following course is recommended to substitute for 3 SHC of Humanities/Fine Arts:

COM 231 Public Speaking (3 SHC)

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.
The following course is required:
PSY 150 General Psychology (3 SHC)

Two additional courses from one of the following discipline areas is required, to include one additional discipline: anthropology, economics, geography, history, political science, psychology, and sociology.

Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC):
One of the following sequences of courses is required:
CHM 151 General Chemistry I (4 SHC) and
CHM 152 General Chemistry II (4 SHC)
                 or
BIO 111 General Biology I (4 SHC) and
BIO 112 General Biology II (4 SHC)

Mathematics (6 SHC):
The following courses **are required**:
CIS 110 Introduction to Computers (3 SHC)
MAT 161 or higher College Algebra (3 SHC)

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.
The following courses are required (8 SHC):
HEA 110 Personal Health/Wellness (3 SHC)
HEA 112 First Aid and CPR (2 SHC)
HEA 120 Community Health (3 SHC)
The following course sequence is required (8 SHC):
BIO 168 Anatomy and Physiology I (4 SHC) and
BIO 169 Anatomy and Physiology II (4 SHC)
The following course is required (3 SHC):
MAT 155 Statistical Analysis (3 SHC)
One additional hour of approved college transfer course work is required to total 64 SHC of transferable courses.
TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65
*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Health Education will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, FSU, NCCU, UNC-C, UNC-G, UNC-P

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Health Education. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Arts Articulation Agreement: History (A1010H)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting

(One of the following courses is recommended to satisfy the second composition requirement:
ENG 112 Argument-Based Research (3 SHC) or ENG 113 Literature-Based Research 3 SHC).)

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required.
One course must be a **literature** course.
Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.
One course must be a **history** course.
Three courses from the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology.
The following history sequence is recommended:
HIS 111 World Civilizations I (3 SHC) and
HIS 112 World Civilizations II (3 SHC)
Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC):
Two courses from the biological and physical science disciplines, including accompany laboratory work, are required.

Mathematics (6 SHC): Two courses are required.
MAT 161 (or higher) College Algebra (3 SHC)
The second course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.
20 additional hours of approved college transfer courses are required.
The following courses are recommended:
HIS 131 American History I (3 SHC)
HIS 132 American History II (3 SHC)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for History will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in History.

Pre-Major Associate in Science Articulation Agreement: Mathematics (A1040E)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Science degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.
English Composition (6 SHC) Two English composition courses are required.
English 111, Expository Writing, **is required** as the first composition course.
The second composition course must be selected from the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required.
One course must be a **literature** course.
Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.
One course must be a **history** course.
Three courses from the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology.

Natural Sciences/Mathematics (16 SHC)
Natural Sciences (8 SHC):
The following physics sequence is required:
PSY 251 General Physics I (4 SHC)
PHY 252 General Physics II (4 SHC)

Mathematics (8 SHC):
The following mathematics courses are required:
MAT 175 Precalculus I (4 SHC)
MAT 271 Calculus I (4 SHC)

OTHER REQUIRED HOURS (18-19 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.
The following courses are required (8 SHC):
MAT 272 Calculus II (4 SHC)
MAT 273 Calculus III (4 SHC)
One of the following courses is required (3 SHC):
MAT 280 Linear Algebra (3 SHC) or
MAT 285 Differential Equations (3 SHC)
7 additional hours of approved college transfer courses are required.
One of the following courses is recommended:
CSC 134 C++ Programming (3 SHC) or
CSC 136 FORTRAN Programming (3 SHC)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in science degree, students who meet the requirements outlined in this pre-major articulation agreement for Mathematics will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Mathematics.

Pre-Major Associate in Science Articulation Agreement: Mathematics Education (A1040F)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Science degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.
English 111, Expository Writing, **is required** as the first composition course.
The second composition course must be selected from the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required
One course must be a **literature** course.
Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.
One course must be a **history** course.
The following courses are required (6 SHC):
PSY 150 General Psychology (3 SHC)
PSY 241 Developmental Psychology (3 SHC)
One additional course from the following discipline areas are required: anthropology, economics, geography, political science and sociology.

Natural Sciences/Mathematics (16 SHC)
Natural Sciences (8 SHC):
The following physics sequence is required:
PHY 251 General Physics I (4 SHC)
PHY 252 General Physics II (4 SHC)

Mathematics (8 SHC):
The following mathematics courses are required:
MAT 175 Precalculus I (4 SHC)
MAT 271 Calculus I (4 SHC)

OTHER REQUIRED HOURS (18-19 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.
The following courses are required (18 SHC):
CSC 134 C++ Programming (3 SHC)
EDU 116* Introduction to Education (4 SHC)
* At certain UNC institutions, EDU 116 may fulfill a major requirement; at a majority of institutions it will transfer only as a free elective.
MAT 272 Calculus II (4 SHC)
MAT 273 Calculus III (4 SHC)
MAT 280 Linear Algebra (3 SHC)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65
*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in science degree, students who meet the requirements outlined in this pre-major articulation agreement for Mathematics Education will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Mathematics Education. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Fine Arts Articulation Agreement: Music and Music Education (A1020D)

GENERAL EDUCATION CORE (28 SHC) * The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC)

Humanities/Fine Arts (6 SHC**) Select **two** courses from **two** of the followng discipline areas: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion. **One course must be a literature course.**

Social/Behavioral Sciences (9 SHC) Select **three** courses from **three** of the following discipline areas: anthropology,

economics, geography, history, political science, psychology, and sociology. **One course must be a history course.**

Natural Sciences/Mathematics (7 SHC)
Natural Sciences (4 SHC): Select one course, including accompanying laboratory work, from among the biological and physical science disciplines.

Mathematics (3 SHC): Select one course in introductory mathematics (college algebra, trigonometry, calculus, etc.)

OTHER REQUIRED HOURS (36-37 SHC)* Courses in health, physical education, college orientation, and/or study skills may be included as other required hours. Work experience may be included up to 1 SHC for career exploration
The following courses are required (26 SHC):
MUS 121 Music Theory I (4 SHC)
MUS 122 Music Theory II (4 SHC)
MUS 151 Class Music I (1 SHC)
MUS 152 Class Music II (1 SHC)
MUS 221 Music Theory III (4 SHC)
MUS 222 Music Theory IV (4 SHC)
MUS 161 Applied Music I (2 SHC)
MUS 162 Applied Music II (2 SHC)
MUS 261 Applied Music III (2 SHC)
MUS 262 Applied Music IV (2 SHC)
Four of the following courses are required (4 SHC):
MUS 131 Chorus I (1 SHC)
MUS 132 Chorus II (1 SHC)
MUS 133 Band I (1 SHC)
MUS 134 Band II (1 SHC)
MUS 135 Jazz Ensemble I (1 SHC)
MUS 136 Jazz Ensemble II (1 SHC)
MUS 137 Orchestra I (1 SHC)
MUS 138 Orchestra II (1 SHC)
MUS 141 Ensemble I (1 SHC)
MUS 142 Ensemble II (1 SHC)
MUS 231 Chorus III (1 SHC)
MUS 232 Chorus IV (1 SHC)
MUS 233 Band III (1 SHC)
MUS 234 Band IV (1 SHC)
MUS 235 Jazz Ensemble III (1 SHC)
MUS 236 Jazz Ensemble IV (1 SHC)
MUS 237 Orchestra III (1 SHC)
MUS 238 Orchestra IV (1 SHC)
MUS 241 Ensemble III (1 SHC)
MUS 242 Ensemble IV (1 SHC)
MUS 253 Big Band (1 SHC)

ELECTIVES (6 - 7 SHC from other MUS courses)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65
*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts. Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in fine arts degree, students who meet the requirements outlined in this pre-major

articulation agreement for Music and Music Education will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSA, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Music and Music Education. Validation of level of achievement in Theory, Class Music, and Applied Music is required for acceptance into four-year programs in accordance with NASM requirements for admission of transfer students. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and PRAXIS II.

Pre-Major Associate in Arts Articulation Agreement: Nursing (A10101)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.
English 111, Expository Writing, **is required** as the first composition course.
The second composition course must be selected from the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required
One course must be a **literature** course.
Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.
One course must be a **history** course.
The following courses are required (9 SHC):
PSY 150 General Psychology (3 SHC)
PSY 241 Developmental Psychology (3 SHC)
SOC 210 Introduction to Sociology (3 SHC)

Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC):
One of the following chemistry sequences is required:
CHM 131, 131A, and 132 Introduction to Chemistry (3 SHC), Lab (1 SHC), Organic Biochemistry (4 SHC)
or
CHM 151 and 152 General Chemistry I (4 SHC)   General Chemistry II (4 SHC)

Mathematics (6 SHC):
The following courses are required (3 SHC):
MAT 161 (or higher) College Algebra (3 SHC) and
MAT 155 Statistical Analysis (3 SHC)

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (6 SHC):
PSY 281 Abnormal Psychology (3 SHC)
SOC 213 Sociology of the Family (3 SHC)
The following course sequence is required (8 SHC)
BIO 168 and 169 Anatomy and Physiology I (4 SHC) and II (4 SHC)
One of the following courses is required (3-4 SHC):
BIO 175 General Microbiology (3 SHC) or
BIO 275 Microbiology (4 SHC)
2-3 additional hours of approved college transfer courses are required to total 64-65 SHC of transferable courses.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Nursing will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ECU, NCA&T, NCCU, UNC-CH, UNC-C, UNC-G, UNC-W, WCU, WSSU..

Admission to the Major

Admission across the several programs in Nursing is competitive. Other professional admission requirements may be designated by individual programs. Grade point average requirements vary and admission is competitive across the several programs in Nursing.

Pre-Major Associate in Arts Articulation Agreement: Physical Education (A1010J)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.
English 111, Expository Writing, **is required** as the first composition course.
The second composition course must be selected from the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting

(The following course is recommended to satisfy the second composition requirement:
ENG 112 Argument-Based Research (3 SHC).)

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required
One course must be a **literature** course.
Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.
The following course is recommended to substitute for 3 SHC of Humanities/Fine Arts:
COM 231 Public Speaking (3 SHC)

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.
One course must be a **history** course.
Three additional courses from the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology.
The following course is recommended:
PSY 150 General Psychology (3 SHC)

Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC):
Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.
The following sequence of courses is recommended:
BIO 111 General Biology I (4 SHC) and
BIO 112 General Biology II (4 SHC)

Mathematics (6 SHC): Two courses are required.
One course must be in introductory mathematics (college algebra, trigonometry, calculus, etc.).
The following course is recommended as the introductory mathematics course:
MAT 161 College Algebra (3 SHC)
One of the following courses is recommended as the second mathematics course:
CIS 110 Introduction to Computers (3 SHC) or
MAT 151 Statistics I (3 SHC) or
MAT 155 Statistical Analysis (3 SHC)

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (4 SHC):
PED 110 Fit and Well for Life (2 SHC)
(2 SHC of PED electives)
16 additional hours of approved college transfer courses are required. Pre-education majors should select additional courses from Humanities/Fine Arts, Social/Behavioral Sciences, Natural Sciences/Mathematics, and electives that meet the requirements of the academic concentration, based on the requirements of the receiving institution.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Physical Education will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, UNC-CH, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Physical Education. Admission to teach licensure programs requires satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Arts Articulation Agreement: Political Science (A1010K)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required
One course must be a **literature** course.
Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.
One of the following course sequences is recommended:
FRE 111 and 112 Elementary French I & II (6 SHC) or
GER 111 and 112 Elementary German I & II (6 SHC) or
SPA 111 and 112 Elementary Spanish I & II (6 SHC)
One of the following courses is recommended to substitute for 3 SHC or Humanities/Fine Arts:
COM 110 Introduction to Communication (3 SHC) or
COM 231 Public Speaking (3 SHC)

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.
One course must be a **history** course.
Three additional courses from the following discipline areas are required: anthropology, economics, geography, history, political science, psychology, and sociology.
The following courses are recommended:
PSY 150 General Psychology (3 SHC)
GEO 111 World Regional Geography (3 SHC)
One of the following courses is recommended:
SOC 210 Introduction to Sociology (3 SHC) or
SOC 220 Social Problems (3 SHC) or
SOC 225 Social Diversity (3 SHC)

Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC):
Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6 SHC): Two courses are required.
One course must be in introductory mathematics (college algebra, trigonometry, calculus, etc.).
The following course is recommended to meet the second mathematics requirement:
CIS 110 Introduction to Computers (3 SHC)

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.
The following course is required (3 SHC):
POL 120 American Government (3 SHC)
17 additional hours of approved college transfer courses are required.
The following courses are recommended:
POL 210 Comparative Government (3 SHC)
POL 220 International Relations (3 SHC)
One of the following is recommended:
ECO 151 Survey of Economics (3 SHC) or
ECO 251 Principles of Microeconomics (3 SHC) or
ECO 252 Principles of Macroeconomics (3 SHC)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Political Science will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Political Science.

Pre-Major Associate in Arts Articulation Agreement: Psychology (A1010L)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

The following course is required (3 SHC):

PSY 150 General Psychology (3 SHC)

Two additional courses from the following discipline areas are required, to include at least one additional discipline: anthropology, economics, geography, history, political science, psychology, and sociology.

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC):

Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

One of the following biology courses **is required** (4 SHC):
BIO 110 Principles of Biology (4 SHC) or
BIO 111 General Biology I (4 SHC)

Mathematics (6 SHC): Two courses are required.

MAT 161 (or higher) College Algebra (3 SHC)

The second course may be a high level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

20 additional hours of approved college transfer courses are required.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.

Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Psychology will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU,

UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Psychology.

Pre-Major Associate in Arts Articulation Agreement: Social Science Secondary Education (A1010M)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting
(One of the following courses is recommended to satisfy the second composition requirement:

ENG 112 Argument-Based Research (3 SHC) or ENG 113 Literature-Based Research (3 SHC).)

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

The following courses are required (6 SHC):

POL 120 American Government (3 SHC)
SOC 210 Introduction to Sociology (3 SHC)
The following course sequence is required (6 SHC):
HIS 111 and 112 World Civilizations I (3 SHC) and II (3 SHC)

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC):

Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6 SHC): Two courses are required.

One course must be introductory mathematics (college algebra, trigonometry, calculus, etc.)

The second course may be a high level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (9 SHC):

GEO 111 World Regional Geography (3 SHC)
HIS 131 American History I (3 SHC)
HIS 132 American History II (3 SHC)
One of the following is required (3 SHC or 6 SHC)
ECO 151 Survey of Economics (3 SHC)
or
ECO 251 Principles of Microeconomics (3 SHC) and
ECO 252 Principles of Macroeconomics (3 SHC)
5-8 additional hours of approved college transfer courses are required to total 64 SHC of transferable courses.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Social Science Secondary Education will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, FSU, NCSU, UNC-CH, WCU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Social Science Secondary Education. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II.

Pre-Major Associate in Arts Articulation Agreement: Social Work (A1010Q)

GENERAL EDUCATION CORE (44 SHC) *(Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.
English Composition (6 SHC) Two English composition courses are required:
English 111, Expository Writing, **is required** as the first composition course.
The second composition course must be selected from the following:
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC**) Four courses from three discipline areas are required
One course must be a **literature** course
Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.
Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.
One course must be a **history** course.
The following courses are required (9 SHC):
POL 120 American Government (3 SHC)
PSY 150 General Psychology (3 SHC)
SOC 210 Introduction to Sociology (3 SHC)
Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC):
Two courses from he biological and physical sciences disciplines, include accompanying laboratory work, are required.
The following courses are recommended:
BIO 110 Principles of Biology (4 SHC) or
BIO 111 General Biology I (4 SHC) and BIO 112 General Biology II (4 SHC)
Mathematics (6 SHC):
The following course is required (3 SHC):
choose one:
MAT 161 College Algebra (3 SHC) or
MAT 171 (or higher) Precalculus Algebra (3 SHC)
The following course is recommended to satisfy the second mathematics requirement:
CIS 110 Introduction to Computers (3 SHC)
Other Required Hours (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.
*20-21 additional hours of approved transfer courses are required:
The following courses are recommended:
ANT 210 General Anthropology (3 SHC)
ECO 151 Survey of Economics (3 SHC)
ECO 251 Principles of Microeconomics (3 SHC)
ECO 252 Principles of Macroeconomics (3 SHC)
HIS 112 World Civilizations II (3 SHC)
HIS 132 American History II (3 SHC)
PSY 241 Developmental Psychology (3 SHC)
PSY 281 Abnormal Psychology (3 SHC)
SPA 111 Elementary Spanish I (3 SHC)
SPA 112 Elementary Spanish II (3 SHC)
Total Semester Hours Credit (SHC) in Program: 64-65
* Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
** 3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Social Work will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, NCA&T,NCCU, NCSU, UNC-C, UNC-G, UNC-P, UNC-W, WCU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Social Work.

Pre-Major Associate in Arts Articulation Agreement: Sociology (A1010N)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting
(The following course is recommended: ENG 112 Argument-Based Research (3 SHC).)

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

Three additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.
The following course is required (3 SHC)
SOC 210 Introduction to Sociology (3 SHC)
One of the following courses is required (3 SHC):
SOC 213 Sociology of the Family (3 SHC) or
SOC 220 Social Problems (3 SHC) or
SOC 225 Social Diversity (3 SHC) or
One course from the following discipline areas is required: anthropology, economics, geography, political science, and psychology.

Natural Sciences/Mathematics (14 SHC)
Natural Sciences (8 SHC):
Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6 SHC): Two courses are required.
One course must be introductory mathematics (college algebra, trigonometry, calculus, etc.)
The following course is recommended to meet the second mathematics requirement:
MAT 155 Statistical Analysis (3 SHC)

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

20 additional hours of approved college transfer courses are required.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.
**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.
Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Sociology will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-G, UNC-P, UNC-W, WCU, WSSU.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Sociology.

Pre-Major Associate in Arts Articulation Agreement: Speech/ Communication (A1010O)

GENERAL EDUCATION CORE (44 SHC) * Forty-four semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Arts degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.

English Composition (6 SHC) Two English composition courses are required.

English 111, Expository Writing, **is required** as the first composition course.

The second composition course must be selected from the following:

ENG 112 Argument-Based Research
ENG 113 Literature-Based Research.
ENG 114 Professional Research and Reporting

Humanities/Fine Arts (12 SHC **) Four courses from three discipline areas are required

One course must be a **literature** course.

The following course is required to substitute for 3 SHC in Humanities/Fine Arts:
COM 110 Introduction to Communication (3 SHC)
Two additional courses from the following discipline areas are required: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion.

The following courses are recommended:
DRA 122 Oral Interpretation (3 SHC)
HUM 160 Introduction to Film (3 SHC)

Social/Behavioral Sciences (12 SHC) Four courses from three discipline areas are required.

One course must be a **history** course.

The following course is required (3 SHC)

PSY 150 General Psychology (3 SHC)

Two courses from the following discipline areas are required, to include at least one additional discipline; anthropology, economics, geography, history, political science, psychology, and sociology.

The following courses are recommended:

SOC 210 Intro to Sociology (3 SHC) or SOC 225 Social Diversity (3 SHC)

ANT 210 General Anthrop (3 SHC) or ANT 220 Cultural Anthrop (3 SHC)

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC):

Two courses from the biological and physical science disciplines, including accompanying laboratory work, are required.

Mathematics (6 SHC): Two courses are required.

One course must be introductory mathematics (college algebra, trigonometry, calculus, etc.)

The second course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).

The following course is recommended to meet the second mathematics requirement:

CIS 110 Introduction to Computers (3 SHC)

OTHER REQUIRED HOURS (20-21 SHC)* Colleges may include courses in health, physical education, college orientation, and/or study skills as other required hours. Work experience up to 1 SHC may be included for career exploration.

The following courses are required (6 SHC):

COM 120 Interpersonal Communication (3 SHC)

COM 231 Public Speaking (3 SHC)

14 additional hours of approved college transfer courses are required.

The following courses are recommended:

COM 140 Intercultural Communication (3 SHC)

MAT 155 Statistical Analysis (3 SHC)

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

*Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.

**3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts.

*Speech/Communication may not substitute for the literature requirement.

Application to a University

Admission application deadlines vary; students must meet the deadline for the university to which they plan to transfer. Upon successful completion of the associate in arts degree, students who meet the requirements outlined in this pre-major articulation agreement for Speech/Communication will be eligible to be considered for admission as juniors to the universities offering the baccalaureate degree: ASU, ECU, NCSU, UNC-C, UNC-G.

Admission to the Major

Grade point average requirements vary and admission is competitive across the several programs in Speech/Communication.

Approved College Transfer Pre-Major Courses

The following are CPCC courses appearing in the Pre-Major Articulation Agreements published in this catalog.

Accounting

ACC 120 Principles of Accounting I

ACC 121 Principles of Accounting II

Art

ART 121 Design I

ART 122 Design II

ART 131 Drawing I

ART 132 Drawing II

ART 135 Figure Drawing I

ART 171 Computer Art I

ART 212 Gallery Assistantship I

ART 213 Gallery Assistantship II

ART 214 Portfolio and Resume

ART 222 Wood Design I

ART 223 Wood Design II

ART 231 Printmaking I

ART 232 Printmaking II

ART 235 Figure Drawing II

ART 240 Painting I

ART 241 Painting II

ART 242 Landscape Painting

ART 243 Portrait Painting

ART 244 Watercolor

ART 245 Metals I

ART 246 Metals II

ART 247 Jewelry I

ART 248 Jewelry II

ART 250 Surface Design: Textiles

ART 251 Weaving I

ART 252 Weaving II

ART 260 Photography Appreciation

ART 261 Photography I

ART 262 Photography II

ART 263 Color Photography

ART 271 Computer Art II

ART 281 Sculpture I

ART 282 Sculpture II

ART 283 Ceramics I

ART 284 Ceramics II

ART 285 Ceramics III

ART 286 Ceramics IV

ART 288 Studio

ART 289 Museum Study

Biology

BIO 168 Anatomy and Physiology I

BIO 169 Anatomy and Physiology II

BIO 275 Microbiology

Business

BUS 110 Introduction to business

BUS 115 Business Law I

BUS 228 Business Statistics

Chemistry

CHM 251 Organic Chemistry I

CHM 252 Organic Chemistry II

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Communications

COM 140 Intercultural Communication

Computer Science

CSC 120 Computing Fundamentals I
CSC 130 Computing Fundamentals II
CSC 134 C++ Programming
CSC 136 FORTRAN Programming
CSC 220 Machine Implem of Algor

Criminal Justice

CJC 111 Introduction to Criminal Justice
CJC 121 Criminology
CJC 141 Corrections

Drafting

DFT 170 Engineering Graphics

Education

EDU 116 Introduction to Education

Engineering

EGR 220 Engineering Statics
EGR 225 Engineering Dynamics

English

ENG 273 African-American Literature
ENG 274 Literature by Women

Health

HEA 110 Personal Health/Wellness
HEA 112 First Aid & CPR
HEA 120 Community Health

History

HIS 221 African-American History

Mathematics

MAT 167 Discrete Mathematics
MAT 280 Linear Algebra
MAT 285 Differential Equations

Music

MUS 111 Fundamentals of Music
MUS 121 Music Theory I
MUS 122 Music Theory II
MUS 123 Music Composition
MUS 131 Chorus I
MUS 132 Chorus II
MUS 133 Band I
MUS 134 Band II
MUS 135 Jazz Ensemble I
MUS 136 Jazz Ensemble II
MUS 137 Orchestra I
MUS 138 Orchestra II
MUS 141 Ensemble I
MUS 142 Ensemble II
MUS 151 Class Music I
MUS 152 Class Music II
MUS 161 Applied Music I
MUS 162 Applied Music II
MUS 170 Business of Music
MUS 175 Recording Techniques I
MUS 176 Recording Techniques II
MUS 210 History of Rock Music
MUS 214 Electronic Music I
MUS 215 Electronic Music II

MUS 217 Elementary Conducting
MUS 221 Music Theory III
MUS 222 Music Theory IV
MUS 231 Chorus III
MUS 232 Chorus IV
MUS 233 Band III
MUS 234 Band IV
MUS 235 Jazz Ensemble III
MUS 236 Jazz Ensemble IV
MUS 237 Orchestra III
MUS 238 Orchestra IV
MUS 241 Ensemble III
MUS 242 Ensemble IV
MUS 251 Class Music III
MUS 252 Class Music IV
MUS 253 Big Band
MUS 261 Applied Music III
MUS 262 Applied Music IV
MUS 265 Piano Pedagogy
MUS 271 Music History I
MUS 272 Music History II

Physical Education

PED 110 Fit and Well For Life
PED 111 Physical Fitness I
PED 112 Physical Fitness II
PED 113 Aerobics I
PED 114 Aerobics II
PED 115 Step Aerobics I
PED 117 Weight Training I
PED 118 Weight Training II
PED 122 Yoga I
PED 123 Yoga II
PED 125 Self-Defense Beginning
PED 126 Self-Defense intermediate
PED 128 Golf - Beginning
PED 129 Golf - Intermediate
PED 130 Tennis - Beginning
PED 131 Tennis - Intermediate
PED 135 Fencing - Beginning
PED 136 Fencing - Intermediate
PED 137 Badminton
PED 139 Bowling - Beginning
PED 142 Lifetime Sports
PED 143 Volleyball - Beginning
PED 152 Swimming - Beginning
PED 153 Swimming - Intermediate
PED 154 Swimming for Fitness
PED 155 Water Aerobics
PED 160 Canoeing - Basic
PED 161 Canoeing - Rivers
PED 163 Kayaking - Basic
PED 164 Kayaking - Whitewater
PED 169 Orienteering
PED 170 Backpacking
PED 173 Rock Climbing
PED 174 Wilderness Pursuits
PED 180 Cycling
PED 181 Snow Skiing - Beginning
PED 182 Snow Skiing - Intermediate
PED 183 Folk Dancing
PED 187 Social Dance - Beginning
PED 188 Social Dance - Intermediate
PED 210 Team Sports
PED 220 Exer For Phys Challenged
PED 260 Lifeguard Training
PED 262 Water Safety Instructor

STUDENTS NOT PARTICIPATING IN THE CAA

Associate In Arts Degree – A.A. (A10100)

General Education Goals for A.A. Degree

The Associate in Arts Degree is awarded for liberal arts study leading to majors in such areas as history, political science, psychology, sociology, and English. Students who **do not** plan to transfer to a UNC system school must complete a minimum of 64 semester hours of college transfer courses including CPCC's required general education courses.

Associate in Science Degree– A.S. (A10400)

General Education Goals for the A.S. Degree

The Associate in Science Degree is awarded for study leading to majors in such areas as science, mathematics, and engineering. Students who **do not** plan to transfer to a UNC system school must complete a minimum of 64 semester hours of college transfer courses including CPCC's required general education courses.

Associate in Fine Arts Degree – A.F.A (A10200)

General Education Goals for the A.F.A. Degree

The Associate in Fine Arts degree is awarded for study leading toward a career in Art, Dance, or Music. The A.F.A. degree is not included in the Comprehensive Articulation agreement. It requires 28 semester hours of General Education, with the remaining 36-37 hours devoted to skill development in the chosen area of concentration. Transfer to a senior institution will be on a course-by-course basis along with the presentation of an art portfolio or an audition for dance or music. Students planning to transfer should contact the institution they plan to attend for specific transfer requirements.

The following are specific CPCC requirements for major areas of concentration in the Associate of Fine Arts degree:

Major area of concentration: ART

Students **are required** to take:
ART 114, 115 Art History Survey I, II
ART 121, 122 Design I, II
ART 131, Drawing I
Studio art courses must meet the following criteria:
6 contact hours for each 3 credit studio class
All two-dimensional studio art classes, except ART 131 Drawing I, require a prerequisite of ART 121 Design I
All three dimensional studio art classes require a prerequisite of ART 122 Design II.

Major area of concentration: DANCE

Dancers **are required** to audition for acceptance into the Dance Program and to take selected courses.

Students **are required** to take:
DAN 133 Intermediate Ballet II
DAN 134 Ballet Pointe Work
DAN 236, 237 Advanced Ballet I, II
DAN 142, 143 Intermediate Modern Dance I, II
DAN 221, 222 Advanced Modern Dance I, II
DAN 225 Choreography
DAN 264 Dance Production (Twice)
DAN 211, 212 Dance History I, II
MUS 110* Music Appreciation
BIO 168** Anatomy and Physiology I
* Meets General Education requirement for Humanities.
**Meets General Education Requirement for Natural Science.

Major area of concentration: MUSIC

Students in this area **are required** to take:
MUS 151, 152 Class Piano
MUS 121, 122, 221, 222 Music Theory I, II, III, IV
MUS 271 Music History I
MUS 161, 162, 261, 262 Applied Music I, II, III, IV
And
Any four of the following 1 Semester Hour Credit courses:
MUS 131, 132, 231, 232 Chorus I, II, III, IV
MUS 133, 134, 233, 234 Band I, II, III, IV
MUS 135, 136, 235, 236 Jazz Ensemble I, II, III, IV
MUS 137, 138, 237, 238 Orchestra I, II, III, IV
MUS 141, 142, 241, 242 Ensemble I, II, III, IV
MUS 253 Big Band

For easy identification the following course list uses the following codes:
A (●) denotes CAA General Education core courses.
A (▲) denotes CAA Pre-major courses
A (❋) denotes CAA Approved elective courses
A (○) denotes electives for transfer on a course by course basis or as part of bilateral agreements.

GENERAL EDUCATION GOALS

Goal I Communications

Associate in Arts (A.A.)

Associate in Science (A.S.)

Associate in Fine Arts (A.F.A.)

All students seeking one of the above degrees must complete two ENG courses and one COM course from the following:

ENGLISH
● ENG 111 Expository Writing
and
● ENG 112 Argument-Based Research
or
● ENG 113 Literature-Based Research
or
● ENG 114 Professional Research and Reporting

COMMUNICATIONS
● COM 110 Introduction to Communication
❋ COM 111 Voice and Diction I
○ COM 112 Voice and Diction II
● COM 120 Interpersonal Communications

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▲ COM 140 Intercultural Communication
● COM 231 Public Speaking
✳ COM 232 Election Rhetoric
✳ COM 233 Persuasive Speaking
✳ COM 251 Debate I

Goal II   Natural Sciences/Mathematical Skills

Associate in Arts (A.A.)

Students seeking the A.A. degree must complete a total of 14 semester hours credit (SHC) in natural science and mathematics. These hours must include 8 SHC of natural science and 6 SHC of mathematics. Three SHC of the mathematics requirement may be selected from other quantitative subjects such as computer science and statistics.

Students must complete at least 8 SHC of laboratory science courses from the following:

Associate in Science (A.S.)

Students seeking the A.S. degree must complete a total of 28 semester hours credit (SHC) in natural science and mathematics. These hours must include 8 SHC of mathematics, 16 SHC of natural science and an additional; 4 SHC from either.

Students must complete at least 16 SHC of laboratory science course from the following:

Associate in Fine Arts (A.F.A.)

Students seeking the A.F.A. degree must complete a total of 7 semester hours credit (SHC) in natural science and mathematics. These hours must include 3 SHC of mathematics, 4 SHC of natural science.

Students must complete at least 4 SHC of laboratory science from the following:

***NATURAL SCIENCE COURSES** for A.A., A.S., and A.F.A. degrees*

Astronomy

● AST 111   Descriptive Astronomy
● AST 111A   Descriptive Astronomy Lab
✳ AST 251   Observational Astronomy

Biology

● BIO 110   Principles of Biology
● BIO 111   General Biology I
● BIO 112   General Biology II
● BIO 120   Introductory Botany
● BIO 130   Introductory Zoology
✳ BIO 143   Field Biology Mini Course
✳ BIO 145   Ecology
✳ BIO 163   Basic Anatomy and Physiology
▲ BIO 168   Anatomy and Physiology I
▲ BIO 169   Anatomy and Physiology II
○ BIO 170   Introductory Microbiology
○ BIO 191   Selected Topics in Biology
○ BIO 193   Selected Topics in Biology
✳ BIO 230   Entomology
✳ BIO 235   Ornithology
✳ BIO 243   Marine Biology
▲ BIO 275   Microbiology

Chemistry

✳ CHM 115   Concepts in Chemistry
✳ CHM 115A   Concepts in Chemistry Laboratory
○ CHM 121   Foundations of Chemistry
○ CHM 121A   Foundations of Chemistry Laboratory
✳ CHM 130   General, Organic and Biochemistry
✳ CHM 130A   General, Organic and Biochemistry Laboratory
● CHM 131   Introduction to Chemistry
● CHM 131A   Introduction to Chemistry Laboratory
● CHM 132   Organic and Biochemistry
● CHM 151   General Chemistry I
● CHM 152   General Chemistry II
○ CHM 191   Selected Topics in Chemistry
○ CHM 193   Selected Topics in Chemistry
▲ CHM 251   Organic Chemistry I
▲ CHM 252   Organic Chemistry II
○ CHM 293   Selected Topics in Chemistry

Geography

✳ GEO 131   Physical Geography I
✳ GEO 132   Physical Geography II

Geology

● GEL 113   Historical Geology
● GEL 120   Physical Geology
✳ GEL 220   Marine Geology

Physical Science

✳ PHS 110   Basic Physical Science
✳ PHS 140   Weather and Climate

Physics

● PHY 110   Conceptual Physics
● PHY 110A   Conceptual Physics Laboratory
○ PHY 131   Physics-Mechanics
○ PHY 132   Physics-Electricity and Magnetic
○ PHY 133   Physics-Sound and Light
● PHY 151   College Physics I
● PHY 152   College Physics II
✳ PHY 153   Modern Topics in Physics
● PHY 251   General Physics I
● PHY 252   General Physics II
✳ PHY 253   Modern Physics

MATHEMATICAL SKILLS

Associate in Arts (A.A.)

Students seeking the A.A. degree must complete 6 SHC in quantitative subjects; 3 SHC must be in mathematics.

Associate in Science (A.S.)

Students seeking the A.S. degree must complete the following 8 SHC in mathematics.
● MAT 271   Calculus I
● MAT 272   Calculus II

Associate in Fine Arts (A.F.A.)

Students seeking the A.F.A. degree must complete 3 SHC in mathematics.

MATHEMATICS COURSES for A.A. and A.F.A. degrees
- ● MAT 140 Survey of Mathematics
- ● MAT 161 College Algebra
- ▲ MAT 167 Discrete Mathematics
- ● MAT 171 Precalculus Algebra
- ✳ MAT 171A Precalculus Algebra Lab
- ● MAT 172 Precalculus Trigonometry
- ✳ MAT 172A Precalculus Trigonometry Lab
- ● MAT 175 Precalculus
- ● MAT 263 Brief Calculus
- ● MAT 271 Calculus I
- ● MAT 272 Calculus II
- ● MAT 273 Calculus III
- ▲ MAT 280 Liner Algebra
- ▲ MAT 285 Differential Equations

OTHER QUANTITATIVE SUBJECT OPTIONS FOR A.A.

COMPUTER SCIENCE
- ● CIS 110 Introduction to Computers
- ● CIS 115 Introduction to Programming and Logic
- ▲ CSC 120 Computing Fundamentals I
- ▲ CSC 130 Computing Fundamentals II
- ▲ CSC 134 C++ Programming
- ▲ CSC 136 Fortran Programming
- ○ CSC 137 Pascal Programming
- ▲ CSC 220 Machine Implementation of Algorithms
- ○ CSC 236 Advanced FORTRAN
- ○ CSC 237 Advanced Pascal

STATISTICS
- ● MAT 155 Statistical Analysis
- ✳ MAT 155A Statistical Analysis Lab

Goal III   Technology

Associate in Arts (A.A.)

Associate in Science (A.S.)

Associate in Fine Arts (A.F.A.)

Students seeking the A.A., A.S. and A.F.A. degrees must complete one course from the following:

COMPUTER SCIENCE
- ● CIS 110 Introduction to Computers
- ● CIS 115 Introduction to Programming and Logic
- ▲ CSC 120 Computing Fundamentals I
- ▲ CSC 130 Computing Fundamentals II
- ▲ CSC 134 C++ Programming
- ▲ CSC 136 Fortran Programming
- ○ CSC 137 Pascal Programming
- ▲ CSC 220 Machine Implementation of Algorithms
- ○ CSC 236 Advanced FORTRAN
- ○ CSC 237 Advanced Pascal

Goal IV Problem Solving and Critical Thinking

Problem solving and critical thinking are incorporated throughout the curriculum at Central Piedmont Community College.

Goal V Humanities and Fine Arts

Associate in Arts (A.A.)

Associate in Science (A.S.)

Students seeking the A.A. or A.S. degree must select four courses (12 SHC) from at least three of the following discipline areas: art, dance, drama, foreign languages, interdisciplinary humanities, literature, music and philosophy. At least one course must be a literature course. Three (3) SHC in speech/communication can be substituted for 3 SHC in humanities/fine arts; however, it cannot substitute for the literature requirement.

Associate in Fine Arts (A.F.A.)

Students seeking the A.F.A. degree must select two courses (6 SHC) from at least two of the following discipline areas: art, dance, drama, foreign languages, interdisciplinary humanities, literature, music and philosophy. At least one course must be a literature course.

HUMANITIES AND FINE ARTS COURSES for A.A., A.S., and A.F.A. degrees

Art
- ● ART 111 Art Appreciation
- ● ART 114 Art History Survey I
- ● ART 115 Art History Survey II
- ● ART 117 Non-Western Art History
- ▲ ART 121 Design I
- ▲ ART 122 Design II
- ▲ ART 131 Drawing I
- ▲ ART 132 Drawing II
- ▲ ART 135 Figure Drawing I
- ▲ ART 171 Computer Art I
- ○ ART 191 Selected Topics in Art
- ○ ART 192 Selected Topics in Art
- ○ ART 193 Selected Topics in Art
- ○ ART 196 Seminar in Art
- ○ ART 197 Seminar in Art
- ○ ART 198 Seminar in Art
- ▲ ART 212 Gallery Assistantship I
- ▲ ART 213 Gallery Assistantship II
- ▲ ART 214 Portfolio and Resume
- ▲ ART 222 Wood Design I
- ▲ ART 223 Wood Design II
- ▲ ART 231 Printmaking I
- ▲ ART 232 Printmaking II
- ▲ ART 235 Figure Drawing II
- ▲ ART 240 Painting I
- ▲ ART 241 Painting II
- ▲ ART 242 Landscape Painting
- ▲ ART 243 Portrait Painting
- ▲ ART 244 Watercolor
- ▲ ART 245 Metals I
- ▲ ART 246 Metals II
- ▲ ART 247 Jewelry I
- ▲ ART 248 Jewelry II
- ▲ ART 250 Surface Design: Textiles
- ▲ ART 251 Weaving I
- ▲ ART 252 Weaving II
- ▲ ART 260 Photography Appreciation
- ▲ ART 261 Photography I
- ▲ ART 262 Photography II

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▲ ART 263 Color Photography
▲ ART 271 Computer Art II
▲ ART 281 Sculpture I
▲ ART 282 Sculpture II
▲ ART 283 Ceramics I
▲ ART 284 Ceramics II
▲ ART 285 Ceramics III
▲ ART 286 Ceramics IV
▲ ART 288 Studio
▲ ART 289 Museum Study
○ ART 291 Selected Topics in Art
○ ART 292 Selected Topics in Art
○ ART 293 Selected Topics in Art
○ ART 296 Seminar in Art
○ ART 297 Seminar in Art
○ ART 298 Seminar in Art

Dance

● DAN 110 Dance Appreciation
○ DAN 121 Tap Dance I
○ DAN 122 Tap Dance II
○ DAN 124 Jazz Dance I
○ DAN 125 Jazz Dance II
○ DAN 127 Dance for Musical Theatre
○ DAN 128 Dance Sources I
○ DAN 129 Dance Sources II
○ DAN 130 Ballet I
○ DAN 131 Ballet II
○ DAN 132 Intermediate Ballet I
○ DAN 133 Intermediate Ballet II
○ DAN 134 Ballet Pointe Work
○ DAN 140 Modern Dance I
○ DAN 141 Modern Dance II
○ DAN 142 Intermediate Modern Dance I
○ DAN 143 Intermediate Modern Dance II
○ DAN 191 Selected Topics in Dance
○ DAN 192 Selected Topics in Dance
○ DAN 193 Selected Topics in Dance
○ DAN 196 Seminar in Dance
○ DAN 197 Seminar in Dance
○ DAN 198 Seminar in Dance
● DAN 211 Dance History I
● DAN 212 Dance History II
○ DAN 221 Advanced Modern Dance I
○ DAN 222 Advanced Modern Dance II
○ DAN 225 Choreography I
○ DAN 226 Choreography II
○ DAN 236 Advanced Ballet I
○ DAN 237 Advanced Ballet II
○ DAN 262 Dance Performance
○ DAN 264 Dance Production
○ DAN 291 Selected Topics in Dance
○ DAN 292 Selected Topics in Dance
○ DAN 293 Selected Topics in Dance
○ DAN 296 Seminar in Dance
○ DAN 297 Seminar in Dance
○ DAN 298 Seminar in Dance

Drama

● DRA 111 Theatre Appreciation
● DRA 112 Literature of the Theatre
○ DRA 120 Voice for Performance
● DRA 122 Oral Interpretation
○ DRA 130 Acting I
○ DRA 131 Acting II
○ DRA 135 Acting for the Camera I

○ DRA 136 Acting for the Camera II
○ DRA 140 Stagecraft I
○ DRA 141 Stagecraft II
○ DRA 142 Costuming
○ DRA 145 Stage Make-Up
○ DRA 170 Play Production I
○ DRA 171 Play Production II
○ DRA 175 Teleplay Production I
○ DRA 176 Teleplay Production II
○ DRA 191 Selected Topics in Drama
○ DRA 192 Selected Topics in Drama
○ DRA 193 Selected Topics in Drama
○ DRA 230 Acting III
○ DRA 231 Acting IV
○ DRA 270 Play Production III
○ DRA 271 Play Production IV
○ DRA 275 Teleplay Production III
○ DRA 276 Teleplay Production IV
○ DRA 291 Selected Topics in Drama
○ DRA 292 Selected Topics in Drama
○ DRA 293 Selected Topics in Drama

Foreign Languages

French

● FRE 111 Elementary French I
✳ FRE 181 French Lab 1
● FRE 112 Elementary French II
✳ FRE 182 French Lab 2
○ FRE 120 French In The Workplace
● FRE 211 Intermediate French I
✳ FRE 281 French Lab 3
● FRE 212 Intermediate French II
✳ FRE 282 French Lab 4
○ FRE 193 Selected Topics in French
✳ FRE 221 French Conversation

German

● GER 111 Elementary German I
○ GER 120 German for the Workplace
✳ GER 181 German Lab 1
● GER 112 Elementary German II
✳ GER 182 German Lab 2
● GER 211 Intermediate German I
✳ GER 281 German Lab 3
● GER 212 Intermediate German II
✳ GER 282 German Lab
○ GER 193 Selected Topics in German
✳ GER 221 German Conversation

Spanish

● SPA 111 Elementary Spanish I
✳ SPA 181 Spanish Lab 1
● SPA 112 Elementary Spanish II
✳ SPA 182 Spanish Lab 2
○ SPA 120 Spanish For The Workplace
● SPA 211 Intermediate Spanish I
✳ SPA 281 Spanish Lab 3
● SPA 212 Intermediate Spanish II
✳ SPA 282 Spanish Lab 4
○ SPA 193 Selected Topics in Spanish
✳ SPA 221 Spanish Conversation

Interdisciplinary Humanities

● HUM 115 Critical Thinking
● HUM 130 Myth In Human Culture

● HUM 160 Introduction To Film
● HUM 211 Humanities I
● HUM 212 Humanities II
● HUM 220 Human Values And Meaning
○ HUM 230 Leadership Development
○ HUM 193 Selected Topics in Humanities

Literature

✳ ENG 133 Introduction to the Novel
● ENG 231 American Literature I
● ENG 232 American Literature II
● ENG 241 British Literature I
● ENG 242 British Literature II
● ENG 251 Western World Literature I
● ENG 252 Western World Literature II
✳ ENG 253 The Bible as Literature
✳ ENG 271 Contemporary Literature
▲ ENG 273 African-American Literature
▲ ENG 274 Literature by Women
✳ ENG 275 Science Fiction

Music

● MUS 110 Music Appreciation
▲ MUS 111 Fundamentals of Music
● MUS 112 Introduction to Jazz
▲ MUS 121 Music Theory I
▲ MUS 122 Music Theory II
▲ MUS 123 Music Composition
▲ MUS 131 Chorus I
▲ MUS 132 Chorus II
▲ MUS 133 Band I
▲ MUS 134 Band II
▲ MUS 135 Jazz Ensemble
▲ MUS 136 Jazz Ensemble II
▲ MUS 137 Orchestra I
▲ MUS 138 Orchestra II
▲ MUS 141 Ensemble I
▲ MUS 142 Ensemble II
▲ MUS 151 Class Music I
▲ MUS 152 Class Music II
▲ MUS 161 Applied Music I
▲ MUS 162 Applied Music II
▲ MUS 170 Business of Music
▲ MUS 175 Recording Techniques I
▲ MUS 176 Recording Techniques II
○ MUS 191 Selected Topics in Music
○ MUS 192 Selected Topics in Music
○ MUS 193 Selected Topics in Music
○ MUS 196 Seminar in Music
○ MUS 197 Seminar in Music
○ MUS 198 Seminar in Music
▲ MUS 210 History of Rock Music
● MUS 213 Opera and Musical Theater
▲ MUS 214 Electronic Music I
▲ MUS 215 Electronic Music II
▲ MUS 217 Elementary Conducting
▲ MUS 221 Music Theory III
▲ MUS 222 Music Theory IV
▲ MUS 231 Chorus III
▲ MUS 232 Chorus IV
▲ MUS 233 Band III
▲ MUS 234 Band IV
▲ MUS 235 Jazz Ensemble III
▲ MUS 236 Jazz Ensemble IV
▲ MUS 237 Orchestra III
▲ MUS 238 Orchestra IV
▲ MUS 241 Ensemble III

▲ MUS 242 Ensemble IV
▲ MUS 251 Class Music III
▲ MUS 252 Class Music IV
▲ MUS 253 Big Band
▲ MUS 261 Applied Music III
▲ MUS 262 Applied Music IV
▲ MUS 265 Piano Pedagogy
▲ MUS 271 Music History I
▲ MUS 272 Music History II
▲ MUS 280 Music for the Elementary Classroom
○ MUS 291 Selected Topics in Music
○ MUS 292 Selected Topics in Music
○ MUS 293 Selected Topics in Music
○ MUS 296 Seminar in Music
○ MUS 297 Seminar in Music
○ MUS 298 Seminar in Music

Music, Applied

These courses provide individual instruction in the skills and techniques of the particular instrument or voice. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature.

The specific instrument is designated by a letter as follows:

B	Clarinet	M	Timpani
C	Flute	N	Saxophone
D	Viola	O	String Bass
E	French horn	P	Piano
F	Harp	Q	Trombone
G	Guitar	R	Trumpet
H	Harpsichord	S	Tuba
J	Cello	V	Voice
K	Organ	W	Violin
L	Percussion		

MUS   161B-W Applied Music I
MUS   162B-W Applied Music II
MUS   261B-W Applied Music III
MUS   262B-W Applied Music IV

Philosophy

● PHI 220 Western Philosophy I
● PHI 221 Western Philosophy II
✳ PHI 230 Introduction To Logic

Goal VI   International Awareness

International awareness is incorporated throughout the curriculum at Central Piedmont Community College.

Goal VII   Social/Behavioral Sciences (Self and Society)

Associate in Arts (A.A.)

Associate in Science (A.S.)

Students seeking the A.A. or A.S. degree must complete four courses (12 SHC) from at least three of the following discipline areas: anthropology, economics, geography, history, political science, psychology, and sociology. At least one course must be a history course.

Associate in Fine Arts (A.F.A.)

Students seeking the A.F.A. degree must complete three courses (9 SHC) from three of the following discipline areas: anthropopogy, economics, geography, history, political science, psychology, and sociology. One course must be a history course.

SOCIAL/BEHAVIORAL SCIENCES COURSES for A.A., A.S., and A.F.A. degrees

Anthropology

- ● ANT 210 General Anthropology
- ● ANT 220 Cultural Anthropology

Economics

- ● ECO 151 Survey of Economics
- ● ECO 251 Principles of Microeconomics
- ● ECO 252 Principles of Macroeconomics

Geography

- ● GEO 111 World Regional Geography

History

- ● HIS 111 World Civilization I
- ● HIS 112 World Civilization II
- ● HIS 131 American History I
- ● HIS 132 American History II
- ✳ HIS 165 Twentith Century World
- ○ HIS 193 Selected Topics in History
- ▲ HIS 221 African-American History
- ✳ HIS 226 The Civil War
- ✳ HIS 231 Recent American History
- ✳ HIS 236 North Carolina History

Political Science

- ● POL 120 American Government
- ○ POL 193 Selected Topics in Political Science
- ● POL 210 Comparative Government
- ● POL 220 International Relations

Psychology

- ○ PSY 141 Psych of Death and Dying
- ● PSY 150 General Psychology
- ● PSY 241 Developmental Psychology
- ✳ PSY 263 Educational Psychology
- ● PSY 281 Abnormal Psychology

Sociology

- ○ SOC 193 Selected Topics in Sociology
- ● SOC 210 Introduction to Sociology
- ● SOC 213 Sociology of the Family
- ● SOC 225 Social Diversity

Goal VIII   Health/Physcial Education

Associate in Arts (A.A.)

Students seeking the A.A. degree must complete two semester hours of Health and Physical Education.

Associate in Science (A.S.)

Students seeking the A.S. degree must complete one semester hour of Health and Physical Education.

Associate in Fine Arts (A.F.A.)

Students seeking the A.F.A. degree have no Health and Physical Education requirements.

Students may meet the receiving university's health and physical education requirements either prior to, or after transfer to the senior institution. Some colleges may require more than two SHC of health/physical education.

HEALTH/PHYSICAL EDUCATION COURSES for A.A. and A.S. degrees

Health

- ▲ HEA 110 Personal Health/Wellness
- ▲ HEA 112 First Aid & CPR
- ▲ HEA 120 Community Health
- ○ HEA 130 Health-Adult Sexuality
- ○ HEA 140 Health-Child Sexuality
- ○ HEA 191 Selected Topics in Health Education
- ○ HEA 192 Selected Topics in Health Education
- ○ HEA 193 Living With Health

Physical Education

- ▲ PED 110 Fit and Well For Life
- ▲ PED 111 Physical Fitness I
- ▲ PED 112 Physical Fitness II
- ▲ PED 113 Aerobics I
- ▲ PED 114 Aerobics II
- ▲ PED 115 Step Aerobics I
- ▲ PED 117 Weight Training I
- ▲ PED 118 Weight Training II
- ▲ PED 122 Yoga I
- ▲ PED 123 Yoga II
- ▲ PED 125 Self-Defense Beginning
- ▲ PED 126 Self-Defense Intermediate
- ▲ PED 128 Golf - Beginning
- ▲ PED 129 Golf - Intermediate
- ▲ PED 130 Tennis - Beginning
- ▲ PED 131 Tennis - Intermediate
- ▲ PED 135 Fencing - Beginning
- ▲ PED 136 Fencing - Intermediate
- ▲ PED 137 Badminton
- ▲ PED 139 Bowling - Beginning
- ▲ PED 142 Lifetime Sports
- ▲ PED 143 Volleyball - Beginning
- ▲ PED 152 Swimming - Beginning
- ▲ PED 153 Swimming - Intermediate
- ▲ PED 154 Swimming for Fitness
- ▲ PED 155 Water Aerobics
- ▲ PED 160 Canoeing - Basic
- ▲ PED 161 Canoeing - Rivers
- ▲ PED 163 Kayaking - Basic
- ▲ PED 164 Kayaking - Whitewater
- ▲ PED 169 Orienteering
- ▲ PED 170 Backpacking
- ▲ PED 173 Rock Climbing
- ▲ PED 174 Wilderness Pursuits
- ▲ PED 180 Cycling
- ▲ PED 181 Snow Skiing - Beginning
- ▲ PED 182 Snow Skiing - Intermediate
- ▲ PED 183 Folk Dancing
- ▲ PED 187 Social Dance - Beginning
- ▲ PED 188 Social Dance - Intermediate
- ○ PED 191 Selected Topics in Physical Education
- ○ PED 191B Canoeing-Whitewater
- ○ PED 191C Kung Fu-Individual Activity
- ○ PED 191D Self Protection for Women
- ○ PED 191E Yoga-Intermediate
- ▲ PED 210 Team Sports
- ▲ PED 220 Exer For Phys Challenged
- ▲ PED 260 Lifeguard Training
- ▲ PED 262 Water Safety Instructor
- ○ PED 291B Independent Weight Training

ADDITIONAL ELECTIVES NOT INCLUDED IN CPCC GOALS

Academic Related

○ ACA 118 College Study Skills
○ ACA 120 Career Assessment

Accounting

▲ ACC 120 Principles of Accounting I
▲ ACC 121 Principles of Accounting II
○ ACC 220 Intermediate Accounting I
○ ACC 221 Intermediate Accounting II

American Sign Language

○ ASL 111 Elementary American Sign Language I
○ ASL 112 Elementary American Sign Language II

Biology

✳ BIO 155 Nutrition
✳ BIO 271 Pathophysiology
✳ BIO 272 Cardiopulmonary Biology

Business

▲ BUS 110 Introduction to Business
▲ BUS 115 Business Law I
○ BUS 116 Business Law II
○ BUS 137 Principles of Management
▲ BUS 228 Business Statistics

Cooperative Education

○ COE 111 Co-op Work Experience I

Criminal Justice

▲ CJC 111 Introduction to Criminal Justice
▲ CJC 121 Law Enforcement Operations
▲ CJC 141 Corrections

Drafting

▲ DFT 170 Engineering Graphics

Education

▲ EDU 116 Introduction to Education

Engineering

▲ EGR 220 Engineering Statics
▲ EGR 225 Engineering Dynamics

English

✳ ENG 125 Creative Writing I
✳ ENG 126 Creative Writing II
○ ENG 193 Selected Topics in English

English As A Foreign Language

○ EFL 111 English For Internationals I
○ EFL 181 EFL Lab I
○ EFL 112 English For Internationals II
○ EFL 182 EFL Lab II

Journalism

✳ JOU 110 Introduction To Journalism

Reading

○ RED 111 Critical Reading For College

ASSOCIATE DEGREE CHECK SHEET

Name:_____SS#:_____

Advisor:_____Office Location:_____Phone#:_____

Intended Degree: (Circle)   A.A.   A.S.   A.F.A.   A.G.E.   NONE

Comprehensive Articulation Agreement (CAA) Participant: (Circle)   Yes   No

Pre-Major/Concentration:_____

Transfer Credits Accepted:_____

GENERAL EDUCATION		Course Hours Required For Intended Degree	Course Hours Earned
CPCC GOAL I	English Composition/Communications.......( )		
	English...		_____( )
			_____( )
	Communications..		_____( )
CPCC GOAL II	Natural Science/Mathematics...................( )		
	Science		_____( )
			_____( )
			_____( )
			_____( )
			_____( )
			_____( )
	Mathematics..		_____( )
			_____( )
CPCC GOAL III	Technology...( ).................		_____( )
CPCC GOAL V	Humanities/Fine Arts............................( ).................		_____( )
			_____( )
			_____( )
			_____( )
CPCC GOAL VII	Behavioral and Social Sciences...............( )		_____( )
			_____( )
			_____( )
			_____( )
CPCC GOAL VIII	Health and Physical Education...............( ).................		_____( )
ELECTIVES:...			_____( )

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_____( )   _____( )   _____( )   _____( )

_____( )   _____( )   _____( )   _____( )

ASSOCIATE DEGREE CHECK SHEET

Name:_____SS#: _____

Advisor:_____Office Location:_____Phone#:_____

Intended Degree: (Circle)　　　　A.A.　　　　A.S.　　　　A.F.A.　　　　A.G.E.　　　　　　NONE

Comprehensive Articulation Agreement (CAA) Participant: (Circle)　　　　Yes　　　　No

Pre-Major/Concentration:_____

Transfer Credits Accepted:_____

GENERAL EDUCATION		Course Hours Required For Intended Degree	Course Hours Earned
CPCC GOAL I	English Composition/Communications.......( )		
	English……………………………………………………		_____( )
			_____( )
	Communications……………………………………………		_____( )
CPCC GOAL II	Natural Science/Mathematics……………….( )		
	Science ……………………………………………………..		_____( )
			_____( )
			_____( )
			_____( )
			_____( )
			_____( )
	Mathematics………………………………………………..		_____( )
			_____( )
CPCC GOAL III	Technology……………………………….( )……………..		_____( )
CPCC GOAL V	Humanities/Fine Arts…………………….( )……………..		_____( )
			_____( )
			_____( )
			_____( )
CPCC GOAL VII	Behavioral and Social Sciences……………( ) ……………..		_____( )
			_____( )
			_____( )
			_____( )
CPCC GOAL VIII	Health and Physical Education……………( )……………..		_____( )
ELECTIVES:……………………………………………..……………………………..……………			_____( )

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_____( )　　　_____( )　　　_____( )　　　_____( )

_____( )　　　_____( )　　　_____( )　　　_____( )

......College-Level Credit Course Descriptions

Course Prefixes *

ACA	Academic/College Success Skills
ACC	Accounting
AIB	American Institute of Banking
ASL	American Sign Language
AHR	Air Conditioning, Heating and Refrigeration
ANT	Anthropology
ARC	Architectural Technology
ART	Art
AST	Astronomy
ATR	Automation Training
AUB	Automotive Body Repair
AUT	Automotive Technology
BIO	Biology
BUS	Business
CHM	Chemistry
CIV	Civil Engineering Technology
COM	Communication
CET	Computer Engineering Technology
CIS/CSC	Computer Information Systems
CJC	Criminal Justice
CUL	Culinary
CYT	Cytotechnology
DAN	Dance
DEN	Dental Hygiene
DDF	Design Drafting
DES	Interior Design
DFT	Drafting
DDT	Developmental Disabilities
DIE	Diesel Mechanics - Heavy Equipment and Transport Technology
DRA	Drama/Theatre
ECO	Economics
EDU	Early Childhood Associate
ELC	Electricity
ELN	Electronics
EGR	Engineering
ENG	English
EHS	Environment Health and Safety
FIP	Fire Protection Technology
FLO	Floriculture
FRE	French
GEO	Geography
GEL	Geology
GER	German
GRA	Graphic Arts

GRD	Graphic Design
HEA	Health
HIT	Health Information Technology
HIS	History
HOR	Horticulture Technology
HRM	Hotel and Restaurant Management
HSE	Human Services Technology
HUM	Humanities
ISC	Industrial Science
INT	International Business
IPP	Interpreter Education
JOU	Journalism
LEX	Legal Education
LOG	Logistics Management
MAC	Machining
MKT	Marketing and Retailing
MAT	Mathematics
MEC	Mechanical Engineering Technology
MED	Medical Assisting
MLT	Medical Laboratory Technology
MUS	Music
NUR	Nursing
OMT	Operations Management Technology
OST	Office Systems Technology
PHI	Philosophy
PED	Physical Education
PHS	Physical Science, Basic
PTA	Physical Therapist Assistant
PHY	Physics
POL	Political Science
POS	Postal Service
PRN	Printing
PSF	Physical Fitness Technology
PSY	Psychology
RED	Reading
REA	Real Estate Appraisal
RLS	Real Estate
RCP	Respiratory Care
RUS	Russian
SEM	Honors/Seminars
SOC	Sociology
SPA	Spanish
SAB	Substance Abuse
SRV	Surveying and EGR Engineering
TAT	Travel and Tourism
TRF	Turfgrass Management
WLD	Welding

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College-Level Credit Course Descriptions

ACA - Academic/College Success Skills

	Lecture	Lab	Credit
ACA 118 College Study Skills	1	2	2

Prerequisites:
Corequisites: None

This course covers skills and strategies designed to improve study behaviors. Topics include time management, note taking, test taking, memory techniques, active reading strategies, critical thinking, communication skills, learning styles, and other strategies for effective learning. Upon completion, students should be able to apply appropriate study strategies and techniques to the development of an effective study plan.

	Lecture	Lab	Credit
ACA 120 Career Assessment	1	0	1

Prerequisites:
Corequisites: None

This course provides the information and strategies necessary to develop clear personal, academic, and professional goals. Topics include personality styles, goal setting, various college curricula, career choices, and campus leadership development. Upon completion, students should be able to clearly state their personal, academic, and professional goals and have a feasible plan of action to achieve those goals.

ACC - Accounting

	Lecture	Lab	Credit

ACC 110 Ten-Key Calculator 0 2 1
Prerequisites:
Corequisites: None
This course is designed to enable mastery of the "touch system" on the ten-key calculator. Emphasis is placed on the "touch system" on the ten-key calculator. Upon completion, students should be able to use the "touch system" on the ten-key calculator in making computations necessary in accounting.

ACC 115 College Accounting 3 2 4
Prerequisites:
Corequisites: None
This course introduces basic accounting principles for a sole proprietorship. Topics include the complete accounting cycle with end-of-period statements, bank reconciliation, payrolls, and petty cash. Upon completion, students should be able to demonstrate an understanding of accounting principles and apply those skills to a business organization. This course is intended for those who have not received credit for ACC 120.

ACC 120 Principles Of Accounting I 3 2 4
Prerequisites
Corequisites: None
This course introduces the basic principles and procedures of accounting. Emphasis is placed on collecting, summarizing, analyzing, and reporting financial information. Upon completion, students should be able to analyze data and prepare journal entries and reports as they relate to the accounting cycle. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

ACC 121 Principles of Accounting II 3 2 4
Prerequisites: ACC 120
Corequisites: None
This course is a continuation of ACC 120. Emphasis is placed on corporate and managerial accounting for both external and internal reporting and decision making. Upon completion, students should be able to analyze and record corporate transactions, prepare financial statements and reports, and interpret them for management. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

ACC 125 Mathematics of Finance 3 0 3
Prerequisites: BUS 121 or MAT 115
Corequisites: None
This course covers computations necessary in accounting for various business transactions. Emphasis is placed on time value of money concepts and calculations needed for topics such as stocks and bonds, annuities, sinking funds, and amortization. Upon completion, students should be able to make computations necessary in accounting for transactions involving these topics.

ACC 129 Individual Income Taxes 2 2 3
Prerequisites:
Corequisites: None
This course introduces the relevant laws governing individual income taxation. Emphasis is placed on filing status, exemptions for dependents, gross income, adjustments, deductions, and computation of tax. Upon completion, students should be able to complete various tax forms pertaining to the topics covered in the course.

ACC 130 Business Income Taxes 2 2 3
Prerequisites:
Corequisites: None
This course introduces the relevant laws governing business and fiduciary income taxes. Topics include tax depreciation, accounting periods and methods, corporations, partnerships, S corporations, estates and trusts, and gifts. Upon completion, students should be able to complete various tax forms pertaining to the topics covered in the course.

ACC 140 Payroll Accounting 1 2 2
Prerequisites: ACC 115 or ACC 120
Corequisites: None
This course covers federal and state laws pertaining to wages, payroll taxes, payroll tax forms, and journal and general ledger transactions. Emphasis is placed on computing wages; calculating social security, income, and unemployment taxes; preparing appropriate payroll tax forms; and journalizing/posting transactions. Upon completion, students should be able to analyze data, make appropriate computations, complete forms, and prepare accounting entries.

ACC 149 Introduction to Accounting Spreadsheets 1 2 2
Prerequisites: ACC 115 or ACC 120
Corequisites: None
This course provides a working knowledge of computer spreadsheets and their use in accounting. Topics include pre-programmed problems, model-building problems, beginning-level macros, graphics, and what-if analysis enhancements of template problems. Upon completion, students should be able to use a computer spreadsheet to complete many of the tasks required in accounting.

ACC 150 Computerized General Ledger 1 2 2
Prerequisites: ACC 115 or ACC 120
Corequisites: None
This course introduces microcomputer applications related to the major accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to solve accounting problems.

ACC 151 Accounting Spreadsheet Application 1 2 2
Prerequisites: ACC 149
Corequisites: None
This course is designed to facilitate the use of spreadsheet technology as applied to accounting principles. Emphasis is placed on using spreadsheet software as a problem-solving and decision-making tool. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

ACC 220 Intermediate Accounting I 3 2 4
Prerequisites: ACC 121
Corequisites: None
This course is a continuation of the study of accounting principles with in-depth coverage of theoretical concepts and financial statements. Topics include generally accepted accounting principles and statements and extensive analyses of balance sheet components. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards.

ACC 221   Intermediate Accounting II   3   2   4
Prerequisites: ACC 220
Corequisites: None
This course is a continuation of ACC 220. Emphasis is placed on special problems which may include leases, bonds, investments, ratio analyses, present value applications, accounting changes, and corrections. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

ACC 225   Cost Accounting   3   0   3
Prerequisites: ACC 121
Corequisites: None
This course introduces the nature and purposes of cost accounting as an information system for planning and control. Topics include direct materials, direct labor, factory overhead, process, job order, and standard cost systems. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

**ACC 240   Government and Not-for-Profit
                    Accounting   3   0   3**
Prerequisites: ACC 121
Corequisites: None
This course introduces principles and procedures applicable to governmental and not-for-profit organizations. Emphasis is placed on various budgetary accounting procedures and fund accounting. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

ACC 250   Advanced Accounting   3   0   3
Prerequisites: ACC 220
Corequisites: None
This course is designed to analyze the special problems in accounting for business combinations and consolidated corporate entities. Emphasis is placed on accounting for mergers and consolidations and preparing consolidated working papers and consolidated financial statements. Upon completion, students should be able to solve a wide variety of problems by advanced application of accounting principles and procedures.

ACC 269   Auditing   3   0   3
Prerequisites: ACC 220
Corequisites: None
This course covers the overall framework of the process of conducting audits and investigations. Emphasis is placed on collecting data from working papers, arranging and systematizing the audit, and writing the audit report. Upon completion, students should be able to demonstrate competence in applying the generally accepted auditing standards and the procedures for conducting an audit.

ACC 270   International Accounting   3   0   3
Prerequisites: ACC 120 and INT 220
Corequisites: None
This course includes identifying, recording, and interpreting financial information for accounting systems used in different countries. Topics include currency exchange rates, methods of setting and selecting transfer prices, practices used to account for rates of inflation, and major types of taxes. Upon completion, students should be able to describe accounting systems and their impacts on different currencies and demonstrate a basic knowledge of international accounting computations necessary

in accounting for various business transactions. This course is a unique concentration requirement in the International Business concentration in the Business Administration program.

AIB - American Institute of Banking

	Lecture	Lab	Credit

AIB 110   Principles of Banking   3   0   3
Prerequisites:
Corequisites: None
This course covers the fundamentals of bank functions in a descriptive fashion. Topics include banks and the monetary system, the relationship of banks to depositors, the payment functions, bank loans and accounting, regulations, and examinations. Upon completion, students should be able to demonstrate an understanding of the business of banking from a broad perspective.

AIB 111   Teller Training   3   0   3
Prerequisites:
Corequisites: None
This course provides an overview of banking teller operations, bank security, and customer relations in preparation for work as a bank teller. Topics include bank profitability, cash and cash handling, checks and other transactions, balancing and setting, and security threats and their detection. Upon completion, students should be able to discuss the components of teller performance and perform effectively as a teller after minimal on-the-job training.

**AIB 112   Oral & Written
                    Communication Skills   3   0   3**
Prerequisites:
Corequisites: None
This course covers the communication principles needed for effective written and verbal communications with co-workers and customers in the banking industry. Topics include overcoming barriers to effective communication, effective listening, the writing process, and applying the principles of persuasion. Upon completion, students should be able to develop an active, strong, businesslike, on-paper personality and effectively present themselves in verbal communication.

AIB 115   Marketing for Bankers   3   0   3
Prerequisites:
Corequisites: None
This course is designed to provide a practical understanding of marketing in the financial services organization. Topics include consumer motivation and buying, marketing information and research, the marketing management process, public relations, and communications. Upon completion, students should be able to develop a marketing plan integrating public relations, advertising, sales promotion, selling, and service distribution.

AIB 116   Supervision for Bankers   3   0   3
Prerequisites:
Corequisites: None
This course is designed to provide an overview of basic supervision considerations. Topics include supervisory management fundamentals, problem solving, and decision making. Upon completion, students should be able to demonstrate an understanding of basic managerial functions of supervision, including planning, organizing, staffing, directing, budgeting, and labor relations.

AIB 121   Economics For Bankers   3   0   3

Prerequisites:
Corequisites: None
This course is designed to provide bankers with an introduction to the fundamental principles of economics. Emphasis is placed on the basics of economics theory, macroeconomics, and examples of the application of economics to banking. Upon completion, students should be able to interpret economic indicators, relate basic principles of economic theory, describe inflation, and compare and contrast economic systems.

AIB 131   Fundamentals of Bank Lending   3   0   3

Prerequisites: ACC 120
Corequisites: None
This course introduces the basic knowledge and skills needed to be an effective lender. Topics include the functions of the loan interview and credit investigation, the "C"'s of credit, elements of loan documentation, and warning signs of problem loans. Upon completion, students should be able to demonstrate an understanding of the credit functions and regulatory issues affecting this key banking function. This course is a unique concentration requirement of the Banking and Finance concentration in the Business Administration program.

AIB 133   Bank Cards   3   0   3

Prerequisites:
Corequisites: None
This course provides an overview of bank cards including operational aspects, interface with payment system, and relationship to electronic funds transfer technology. Topics include bank cards in the American economy, operations, payment and transfer systems, competition, and legal and regulatory issues. Upon completion, students should be able to demonstrate an understanding of bank cards in the overall framework of the commercial bank's services and profitability.

AIB 141   Law & Banking: Principles   3   0   3

Prerequisites:
Corequisites: None
This course provides an overview of the legal aspects of banking and the legal framework within which banks function. Topics include the court system, consumer protection, tangible and intangible property ownership, and the legalities and regulations of bank transactions. Upon completion, students should be able to discuss the non-technical aspects of the legal system and how these affect the bank's organization and operation. This course is a unique concentration requirement of the Banking and Finance concentration in the Business Administration program.

AIB 142   Deposit Operations   3   0   3

Prerequisites:
Corequisites: None
This course provides an overview of the US payments system and banking law and regulation. Topics include banking law and regulations, current industry practices, bank deposit-taking activities, managing deposited funds, and EFT systems. Upon completion, students should be able to explain how banks operate relative to their deposit-taking activities and management of deposited funds.

AIB 143   Financial Planning   3   0   3

Prerequisites:
Corequisites: None
This course covers the perspectives, principles, and practices of financial planning. Topics include investment, retirement, tax, and estate planning. Upon completion, students should be

able to understand the process that looks at a customer's financial picture and recommend strategies to achieve the customer's objectives.

AIB 151   Trust Investments   3   0   3

Prerequisites:
Corequisites: None
This course covers the theory and practice of trust department investment services. Topics include the money market, capital market, relationship between risk and return, economic forecasting principles, valuing stocks, and concepts of portfolio management. Upon completion, students should be able to explain the complexities of the investment process and define the purpose of investments in the bank's trust department.

AIB 152   Trust Business   3   0   3

Prerequisites:
Corequisites: None
This course provides an overview of the trust department. Emphasis is placed on the different types of individual and corporate trusts, agencies, and services. Upon completion, students should be able to explain the role of the trust department and identify the services provided and to whom they are delivered.

AIB 222 Money and Banking   3   0   3

Prerequisites:
Corequisites: None
This course provides a fundamental treatment of how money and banks function in the US and world economies. Topics include the roles of money in the US economy, the functions of the Federal Reserve Board, and the workings of monetary and fiscal policies. Upon completion, students should be able to explain how the monetary economy functions, how banks are creators of money, and the impact of the Federal Reserve. This course is a unique concentration requirement of the Banking and Finance concentration in the Business Administration program.

AIB 232   Consumer Lending   3   0   3

Prerequisites:
Corequisites: None
This course details the many types of credit arrangements in which a finance charge is paid for the privilege of repaying debt in delayed payments. Topics include consumer credit policy, the loan process, servicing and collecting loans, consumer compliance, and evaluating credit risks. Upon completion, students should be able to identify collection policies and procedures, explain principles of credit evaluation, define open-end credit, and describe indirect lending.

AIB 233   Commercial Lending   3   0   3

Prerequisites:
Corequisites: None
This course introduces the basic principles and procedures used in commercial lending. Topics include the commercial customer, types of commercial loans, the commercial lending process, financial reports, and regulatory requirements. Upon completion, students should be able to demonstrate the knowledge and skills needed to effectively and profitably service the commercial loan customer.

AIB 234   Residential Mortgage Lending   3   0   3

Prerequisites:
Corequisites: None
This course provides an overview of the field of mortgage lending and the various financial markets for real estate mortgages. Topics include conventional and government related mortgages, contracts, financial markets, and qualifying prospec-

tive loan customers. Upon completion, students should be able to demonstrate an understanding of mortgage loan origination and processing, government regulations, and compliance issues.

AIB 235   Analyzing Financial Statements   3   0   3

Prerequisites: ACC 120
Corequisites: None
This course provides practice in constructing and analyzing long-range, multiple-year forecasts of income statements and balance sheets, and cash budgets. Topics include trend, ratio, common size, comparative analysis, programs, projections, and cash budgets. Upon completion, students should be able to analyze income statements, balance sheets, and pro forma statements.

AIB 236   Financing Real Estate   3   0   3

Prerequisites:
Corequisites: None
This course introduces construction lending and other areas of commercial real estate finance with particular emphasis on managing credit risk. Topics include real estate law, appraisal, and investment analysis. Upon completion, students should be able to explain the basic formulas used in the analysis of commercial real estate investments and the principles of risk.

AIB 244 Bank Management   3   0   3

Prerequisites:
Corequisites: None
This course introduces the handling of day-to-day bank activities. Emphasis is placed on the objectives, planning, structure, control, and interrelationship of various bank departments. Upon completion, students should be able to demonstrate an understanding of bank objectives and policies and the administration of deposits, loans, and other investments.

AIB 245   Bank Investments   3   0   3

Prerequisites:
Corequisites: None
This course introduces the factors that affect investment strategies and decisions grounded in a framework of fundamental investment concepts such as risk, liquidity, and yield. Topics include profit and risk analysis, characteristics of specific investment instruments, funds strategies, and investment risks and returns. Upon completion, students should be able to identify and describe bank securities, identify tax factors in bank investments, and define investment accounts and maturity strategies.

AIB 246   International Banking   3   0   3

Prerequisites:
Corequisites: None
This course covers international agencies, foreign exchange activities, Edge Act corporations, international lending, and risk assessment. Topics include corresponding bank relationships, foreign exchange, the Eurodollar market, and developing international business. Upon completion, students should be able to identify the various international services banks provide and explain international lending concepts, credit principles, and risk factors.

AIB 253   Trust Operations   3   0   3

Prerequisites:
Corequisites: None
This course covers basic trust terminology and the concepts that comprise the various trust functions. Topics include securities funds, special investments, types of trust accounts and services, and cash and asset/liability transactions. Upon completion, students should be able to explain the management

and operations of trust services and apply the fundamentals of trust accounting.

AIB 254   Securities Processing   3   0   3

Prerequisites:
Corequisites: None
This course covers the elements of securities transactions that affect obligations, options, rights of securities issues, and stockholders. Topics include types of securities, the marketplace, and how automated systems help the trading process and regulations. Upon completion, students should be able to demonstrate knowledge and skills concerning specific securities processing activities.
See the SEL and SEM prefixes for generic Selected Topics and Seminar course descriptions.

Advertising

(See GRD Graphic Design)

AHR - Air Conditioning, Heating and Refrigeration

| | Lecture | Lab | Credit |

AHR 110 Introduction to Refrigeration   2   6   5

Prerequisites:
Corequisites: None
This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, and identification and function of components; refrigeration cycle; and tools and instrumentation used in mechanical refrigeration systems. Upon completion, students should be able to identify refrigeration systems and components, explain the refrigeration process, and use the tools and instrumentation of the trade.

AHR 111 HVACR Electricity   2   2   3

Prerequisites:
Corequisites: None
This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits, and the use of electrical test equipment. Upon completion, students should be able to demonstrate good wiring practices and the ability to read simple wiring diagrams.

AHR 112 Heating Technology   2   4   4

Prerequisites: AHR 111, ELC 111, AHR 130
Corequisites: None
This course covers the fundamentals of heating including oil, gas, and electric heating systems. Topics include safety, tools and instrumentation, system operating characteristics, installation techniques, efficiency testing, electrical power, and control systems. Upon completion, students should be able to explain the basic oil, gas, and electrical heating systems and describe the major components of a heating system.

AHR 113 Comfort Cooling   2   4   4

Prerequisites: AHR 111 or ELC 111, AHR 110
Corequisites: None
This course covers the installation procedures, system operations, and maintenance of residential and light commercial comfort cooling systems. Topics include terminology, component operation, and testing and repair of equipment used to control and produce assured comfort levels. Upon completion, students

should be able to use psychometrics, manufacturer specifications, and test instruments to determine proper system operation.

AHR 114 Heat Pump Technology 2 4 4

Prerequisites: AHR 110 or AHR 113
Corequisites: None
This course covers the principles of air source and water source heat pumps. Emphasis is placed on safety, modes of operation, defrost systems, refrigerant charging, and system performance. Upon completion, students should be able to understand and analyze system performance and perform routine service procedures.

AHR 115 Refrigeration Systems 1 3 2

Prerequisites: AHR 110
Corequisites: None
This course introduces refrigeration systems and applications. Topics include defrost methods, safety and operational control, refrigerant piping, refrigerant recovery and charging, and leak testing. Upon completion, students should be able to assist in installing and testing refrigeration systems and perform simple repairs.

AHR 120 HVACR Maintenance 1 3 2

Prerequisites:
Corequisites: None
This course introduces the basic principles of industrial air conditioning and heating systems. Emphasis is placed on preventive maintenance procedures for heating and cooling equipment and related components. Upon completion, students should be able to perform routine preventive maintenance tasks, maintain records, and assist in routine equipment repairs.

AHR 125 HVAC Electronics 1 3 2

Prerequisites:
Corequisites: AHR 111 or ELC 111
This course introduces the common electronic control components in HVAC systems. Emphasis is placed on identifying electronic components and their functions in HVAC systems and motor-driven control circuits. Upon completion, students should be able to identify components, describe control circuitry and functions, and use test instruments to measure electronic circuit values and identify malfunctions.

AHR 130 HVAC Controls 2 2 3

Prerequisites: AHR 111 or ELC 111
Corequisites: None
This course covers the types of controls found in residential and commercial comfort systems. Topics include electrical and electronic controls, control schematics and diagrams, test instruments, and analysis and troubleshooting of electrical systems. Upon completion, students should be able to diagnose and repair common residential and commercial comfort system controls.

AHR 133 HVAC Servicing 2 6 4

Prerequisites:
Corequisites: AHR 112 or AHR 113
This course covers the maintenance and servicing of HVAC equipment. Topics include testing, adjusting, maintaining, and troubleshooting HVAC equipment and record keeping. Upon completion, students should be able to adjust, maintain, and service HVAC equipment.

AHR 140 All-Weather Systems 1 3 2

Prerequisites: AHR 112 or AHR 113
Corequisites: None
This course covers the principles of combination heating and cooling systems including gas-electric, all-electric, and oil-elec-

tric systems. Topics include PTAC's and package and split-system units. Upon completion, students should be able to understand systems performance and perform routine maintenance procedures.

AHR 160 Refrigerant Certification 1 0 1

Prerequisites:
Corequisites: None
This course covers the requirements for the EPA certification examinations. Topics include small appliances, high pressure systems, and low pressure systems. Upon completion, students should be able to demonstrate knowledge of refrigerants and be prepared for the EPA certification examinations.

AHR 180 HVACR Customer Relations 1 0 1

Prerequisites:
Corequisites: None
This course introduces common business and customer relation practices that may be encountered in HVACR. Topics include business practices, appearance of self and vehicle, ways of handling customer complaints, invoices, telephone communications, and warranties. Upon completion, students should be able to present themselves to customers in a professional manner, understand how the business operates, complete invoices, and handle complaints.

AHR 211 Residential System Design 2 2 3

Prerequisites:
Corequisites: None
This course introduces the principles and concepts of conventional residential heating and cooling system design. Topics include heating and cooling load estimating, basic psychometrics, equipment selection, duct system selection, and system design. Upon completion, students should be able to design a basic residential heating and cooling system.

AHR 212 Advanced Comfort Systems 2 6 4

Prerequisites: AHR 114
Corequisites: None
This course covers water-cooled comfort systems, water-source/geothermal heat pumps, and high efficiency heat pump systems including variable speed drives and controls. Emphasis is placed on the application, installation, and servicing of water-source systems and the mechanical and electronic control components of advanced comfort systems. Upon completion, students should be able to test, analyze, and troubleshoot water-cooled comfort systems, water-source/geothermal heat pumps, and high efficiency heat pumps.

AHR 215 Commercial HVAC Controls 1 3 2

Prerequisites: AHR 111 or ELC 111
Corequisites: None
This course introduces HVAC control systems used in commercial applications. Topics include electric/electronic control systems, pneumatic control systems, DDC temperature sensors, humidity sensors, pressure sensors, wiring, controllers, actuators, and controlled devices. Upon completion, students should be able to verify or correct the performance of common control systems with regard to sequence of operation and safety.

AHR 220 Commercial Building Codes 3 0 2

Prerequisites:
Corequisites: None
This course covers the appropriate sections of the North Carolina State Building Code that govern the installation of commercial comfort, refrigeration, and mechanical systems. Emphasis is placed on using and understanding applications sec-

tions of the North Carolina State Building Code. Upon completion, students should be able to use the North Carolina State Building Code to locate information regarding the installation of commercial systems.

AHR 225 Commercial System Design   2   3   3

Prerequisites:
Corequisites: None
This course covers the principles of designing heating and cooling systems for commercial buildings. Emphasis is placed on commercial heat loss/gain calculations, applied psychometrics, air-flow calculations, air distribution system design, and equipment selection. Upon completion, students should be able to calculate heat loss/gain, design and size air and water distribution systems, and select equipment.

AHR 235 Refrigeration Design   2   2   3

Prerequisites: AHR 110
Corequisites: None
This course covers the principles of commercial refrigeration system operation and design. Topics include walk-in coolers, walk-in freezers, system components, load calculations, equipment selection, defrost systems, refrigerant line sizing, and electric controls. Upon completion, students should be able to design, adjust, and perform routine service procedures on a commercial refrigeration system.

AHR 240 Hydronic Heating   1   3   2

Prerequisites: AHR 112
Corequisites: None
This course covers the accepted procedures for proper design, installation, and balance of hydronic heating systems for residential or commercial buildings. Topics include heating equipment; pump, terminal unit, and accessory selection; piping system selection and design; and pipe sizing and troubleshooting. Upon completion, students should be able to assist with the proper design, installation, and balance of typical hydronic systems.

ANT - Anthropology

	Lecture	Lab	Credit
ANT 210 General Anthropology	3	0	3

Prerequisites:
Corequisites: None
This course introduces the physical, archaeological, linguistic, and ethnological fields of anthropology. Topics include human origins, genetic variations, archaeology, linguistics, primatology, and contemporary cultures. Upon completion, students should be able to demonstrate an understanding of the four major fields of anthropology. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

ANT 220 Cultural Anthropology   3   0   3

Prerequisites:
Corequisites: None
This course introduces the nature of human culture. Emphasis is placed on cultural theory, methods of fieldwork, and cross-cultural comparisons in the areas of ethnology, language, and the cultural past. Upon completion, students should be able to demonstrate an understanding of basic cultural processes and how cultural data are collected and analyzed. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral*

sciences.

ASL - American Sign Language

(See also IPP Interpreter Education)

	Lecture	Lab	Credit
ASL 111 Elementary ASL I	3	0	3

Prerequisites:
Corequisites: ASL 181
This course introduces the fundamental elements of American Sign Language. Emphasis is placed on the development of basic expressive and receptive skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to expressive American Sign Language.

ASL 112 Elementary ASL II   3   0   3

Prerequisites: ASL 111
Corequisites: ASL 182
This course is a continuation of ASL 111 focusing on the fundamental elements of American Sign Language. Emphasis is placed on the progressive development of expressive and receptive skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to expressive American Sign Language.

ASL 181 ASL Lab 1   0   2   1

Prerequisites:
Corequisites: ASL 111
This course provides an opportunity to enhance acquisition of the fundamental elements of American Sign Language. Emphasis is placed on the development of basic expressive and receptive skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to expressive American Sign Language.

ASL 182 ASL Lab 2   0   2   1

Prerequisites: ASL 181
Corequisites: ASL 112
This course provides an opportunity to enhance acquisition of the fundamental elements of American Sign Language. Emphasis is placed on the progressive development of basic expressive and receptive skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to expressive American Sign Language.

ARC - Architectural Technology

	Lecture	Lab	Credit
ARC 111 Introduction to Arch Technology	1	6	3

Prerequisites:
Corequisites: None
This course introduces basic architectural drafting techniques, lettering, use of architectural and engineer scales, and sketching. Topics include orthographic, axonometric, and oblique drawing techniques using architectural plans, elevations, sections, and details; reprographic techniques; and other related topics. Upon completion, students should be able to prepare and print scaled drawings within minimum architectural standards.

ARC 112 Construction Materials & Methods   3   2   4

Prerequisites:
Corequisites: None
This course introduces construction materials and their methodologies. Topics include construction terminology, materials and their properties, manufacturing processes, construction techniques, and other related topics. Upon completion, students should be able to detail construction assemblies and identify construction materials and properties.

ARC 113 Residential Arch Tech   1   6   3

Prerequisites: ARC 111
Corequisites: None
This course covers intermediate residential working drawings. Topics include residential plans, elevations, sections, details, schedules, and other related topics. Upon completion, students should be able to prepare a set of residential working drawings that are within accepted architectural standards.

ARC 114 Architectural CAD   1   3   2

Prerequisites: ARC 111
Corequisites: None
This course introduces basic architectural CAD techniques. Topics include basic commands and system hardware and software. Upon completion, students should be able to prepare and plot architectural drawings to scale within accepted architectural standards.

ARC 120 Interior Design-Residential   1   6   3

Prerequisites: ARC 111
Corequisites: None
This course covers principles of light construction and materials. Topics include terminology, components, and light construction codes. Upon completion, students should be able to understand light construction principles.

ARC 131 Building Codes   2   2   3

Prerequisites: ARC 133
Corequisites: None
This course covers the methods of researching building codes for specific projects. Topics include residential and commercial building codes. Upon completion, students should be able to determine the code constraints governing residential and commercial projects.

ARC 132 Specifications and Contracts   2   0   2

Prerequisites: ARC 133
Corequisites: None
This course covers the development of written specifications and the implications of different contractual arrangements. Topics include specification development, contracts, bidding material research, and agency responsibilities. Upon completion, students should be able to write a specification section and demonstrate the ability to interpret contractual responsibilities.

ARC 133 Construction Document Analysis   1   3   2

Prerequisites:
Corequisites: None
This course covers the analysis of building construction drawings. Emphasis is placed on material identification, understanding construction details, and the relationships of building structural, mechanical, plumbing, and electrical systems. Upon completion, students should be able to analyze a set of construction drawings by identifying building construction materials and understanding construction details and engineering systems.

ARC 160 Residential Design   1   6   3

Prerequisites: ARC 111
Corequisites: None
This course introduces the methodology of basic residential design. Topics include residential site design, space organization and layout, residential styles, and the development of schematic design. Upon completion, students should be able to design a residence.

ARC 191 Selected Topics in Architectural Technology   0-1   0-3   1

Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ARC 192 Selected Topics in Architectural Technology   0-2   0-6   2

Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ARC 196 Seminar in Architectural Technology   0-1   0-3   1

Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ARC 197 Seminar in Architectural Technology   0-2   0-6   2

Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ARC 212 Commercial Construction Tech   1   6   3

Prerequisites: ARC 111, ARC 113 and ARC 133
Corequisites: None
This course introduces regional construction techniques for commercial plans, elevations, sections, and details. Topics include production of a set of commercial contract documents and other related topics. Upon completion, students should be able to prepare a set of working drawings in accordance with building codes.

ARC 213 Design Project   2   6   4

Prerequisites: ARC 131, ARC 212, ARC 230, and CIV 220
Corequisites: None
This course provides the opportunity to design and prepare a set of contract documents within an architectural setting. Topics include schematic design, design development, construction documents, and other related topics. Upon completion, students should be able to prepare a set of commercial contract documents.

ARC 220 Advanced Architect CAD   1   3   2

Prerequisites: ARC 114
Corequisites: None
This course provides file management, productivity, and CAD customization skills. Emphasis is placed on developing advanced proficiency techniques. Upon completion, students should be able to create symbol libraries, compose sheets with multiple details, and use advanced drawing and editing commands.

ARC 221 Architectural 3-D CAD   1   4   3

Prerequisites: ARC 114
Corequisites: None
This course introduces architectural three-dimensional CAD applications. Topics include three-dimensional drawing, coordinate systems, viewing, rendering, modeling, and output options. Upon completion, students should be able to prepare architectural three-dimensional drawings and renderings.

ARC 230 Environmental Systems   3   3   4

Prerequisites: ARC 111 and MAT 121
Corequisites: None
This course introduces plumbing, mechanical (HVAC), and electrical systems for the architectural environment. Topics include basic plumbing, mechanical, and electrical systems for residential and/or commercial buildings with an introduction to selected code requirements. Upon completion, students should be able to develop schematic drawings for plumbing, mechanical, and electrical systems and perform related calculations.

ARC 231 Arch Presentations   2   4   4

Prerequisites: ARC 111
Corequisites: None
This course introduces architectural presentation techniques. Topics include perspective drawing, shadow projection, texturization, rendered plans, elevations, and other related topics. Upon completion, students should be able to present ideas graphically and do rendered presentation drawings.

ARC 240 Site Planning   2   2   3

Prerequisites: ARC 111
Corequisites: None
This course introduces the principles of site planning, grading plans, and earthwork calculations. Topics include site analysis, site work, site utilities, cut and fill, soil erosion control, and other related topics. Upon completion, students should be able to prepare site development plans and details and perform cut and fill calculations.

ARC 250 Survey of Architecture   3   0   3

Prerequisites:
Corequisites: None
This course introduces the historical trends in architectural form. Topics include historical and current trends in architecture. Upon completion, students should be able to demonstrate an understanding of significant historical and current architectural styles.

ARC 262 Arch Animation & Video   1   6   3

Prerequisites: ARC 221
Corequisites: None
This course covers three dimensional architectural animation. Topics include story boarding, rendered animation creation, audio and video input/output, and techniques for camera and object movement in and around buildings. Upon completion, students should be able to produce rendered architectural animations with sound and archive data to selected media.

ARC 292 Selected Topics in Architectural   0-2   0-6   2

Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ARC 297 Seminar in Architectural   0-2   0-6   2

Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ART - Art

	Lecture	Lab	Credit

ART 111 Art Appreciation   3   0   3

Prerequisites:
Corequisites: None
This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media. Concepts related to media and technique will be introduced. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ART 114 Art History Survey I   3   0   3

Prerequisites:
Corequisites: None
This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ART 115 Art History Survey II   3   0   3

Prerequisites:
Corequisites: None
This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ART 117 Non-Western Art History   3   0   3

Prerequisites:
Corequisites: None
This course introduces non-Western cultural perspectives. Emphasis is placed on, but not limited to, African, Oriental, and

Oceanic art forms throughout history. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of non-Western social and cultural development. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ART 121 Design I   1   4   3

Prerequisites:
Corequisites: None
This course introduces the elements and principles of design as applied to two-dimensional art. Emphasis is placed on the structural elements, the principles of visual organization, and the theories of color mixing and interaction. Upon completion, students should be able to understand and use critical and analytical approaches as they apply to two-dimensional visual art.

ART 122 Design II   1   4   3

Prerequisites: ART 121
Corequisites: None
This course introduces basic studio problems in three-dimensional visual design. Emphasis is placed on the structural elements and organizational principles as applied to mass and space. Upon completion, students should be able to apply three-dimensional design concepts. Students will demonstrate an understanding of these concepts in assigned projects.

ART 131 Drawing I   0   6   3

Prerequisites:
Corequisites: None
This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes. Students will apply theories of perspective and composition using media that includes graphite, ink, charcoal and conte crayon.

ART 132 Drawing II   0   6   3

Prerequisites: ART 131
Corequisites: None
This course continues instruction in the language of drawing and the use of various materials. Emphasis is placed on experimentation in the use of drawing techniques, media, and graphic materials. Upon completion, students should be able to demonstrate increased competence in the expressive use of graphic form and techniques. Approaches to drawing the human form and color problems will be introduced.

ART 135 Figure Drawing I   0   6   3

Prerequisites: ART 131
Corequisites: None
This course introduces rendering the human figure with various drawing materials. Emphasis is placed on the use of the visual elements, anatomy, and proportion in the representation of the draped and undraped figure. Upon completion, students should be able to demonstrate competence in drawing the human figure.

ART 171   Computer Art I   1   4   3

Prerequisites:
Corequisites: None
This course introduces the use of the computer as a tool for solving visual problems. Emphasis is placed on fundamentals of computer literacy and design through bit-mapped image manipulation. Upon completion, students should be able to demonstrate an understanding of paint programs, printers, and scanners to capture, manipulate, and output images.

ART 191 Selected Topics in Art   0-1   0-3   1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 192 Selected Topics in Art   0-2   0-6   2

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 193 Selected Topics in Art   1-3   0-6   3

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 196 Seminar in Art   0-1   0-3   1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ART 197 Seminar in Art   0-2   0-6   2

Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ART 198 Seminar in Art   1-3   0-6   3

Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ART 212 Gallery Assistantship I   0   2   1

Prerequisites:
Corequisites: None
This course covers the practical application of display techniques. Emphasis is placed on preparation of artwork for installation, hardware systems, and exhibition graphics. Upon completion, students should be able to demonstrate basic gallery exhibition skills.

ART 213 Gallery Assistantship II   0   2   1

Prerequisites: ART 212
Corequisites: None
This course provides additional experience in display techniques. Emphasis is placed on preparation of artwork for exhibi-

tion, alternative methods of installation, hardware systems, and exhibition graphics. Upon completion, students should be able to demonstrate independent decision-making and exhibition expertise.

ART 214 Portfolio and Résumé   0   2   1

Prerequisites:
Corequisites: None
This course covers résumé writing, interview skills, and the preparation and presentation of an art portfolio. Emphasis is placed on the preparation of a portfolio of original artwork, the preparation of a photographic portfolio, approaches to résumé writing, and interview techniques. Upon completion, students should be able to mount original art for portfolio presentation, photograph and display a professional slide portfolio, and write an effective résumé

ART 222 Wood Design I   0   6   3

Prerequisites: ART 132
Corequisites: None
This course introduces the historical and contemporary design concepts and their application to the construction of functional and sculptural wood forms. Emphasis is placed on the mastery of hand and power tools. Upon completion, students should be able to demonstrate appropriate use of tools to create unique designs. Safety and correct use, along with maintenance of studio and tools will be emphasized.

ART 223 Wood Design II   0   6   3

Prerequisites: ART 222
Corequisites: None
This course provides a continuation of the skills and techniques used in ART 222. Emphasis is placed on woodcarving and other processes. Upon completion, students should be able to use original designs in the creation of functional and sculptural forms.

ART 231 Printmaking I   0   6   3

Prerequisites:
Corequisites: None
This course introduces printmaking: its history, development techniques, and processes. Emphasis is placed on basic applications with investigation into image source and development. Upon completion, students should be able to produce printed images utilizing a variety of methods. This course introduces relief, intaglio, serigraphy and planographic processes.

ART 232 Printmaking II   0   6   3

Prerequisites: ART 231
Corequisites: None
This course includes additional methods and printmaking processes. Emphasis is placed on the printed image as related to method, source, and concept. Upon completion, students should be able to produce expressive images utilizing both traditional and innovative methods.

ART 235 Figure Drawing II   0   6   3

Prerequisites: ART 135
Corequisites: None
This course extends the study and rendering of the draped and undraped human figure. Emphasis is placed on the exploration of materials and approaches to drawing. Upon completion, students should be able to demonstrate creativity in the representation of the figure.

ART 240 Painting I   0   6   3

Prerequisites:
Corequisites: None
This course introduces the language of painting and the use of various painting materials. Emphasis is placed on the understanding and use of various painting techniques, media, and color principles. Upon completion, students should be able to demonstrate competence in the use of creative processes directed toward the development of expressive form. Students will principally work on easels using oil or acrylic.

ART 241 Painting II   0   6   3

Prerequisites: ART 240
Corequisites: None
This course provides a continuing investigation of the materials, processes, and techniques of painting. Emphasis is placed on the exploration of expressive content using a variety of creative processes. Upon completion, students should be able to demonstrate competence in the expanded use of form and variety. As in Painting I, students will principally work on easels using oil or acrylic.

ART 242 Landscape Painting   0   6   3

Prerequisites: ART 240
Corequisites: None
This course introduces and practices the skills and techniques of open-air painting. Emphasis is placed on techniques of painting summer foliage, skies, and mountains, and the elements of aerial perspective. Upon completion, students should be able to complete an open-air landscape painting employing brush, knife, scumbling, and glazing techniques. Historical and contemporary styles and techniques related to landscape painting will be introduced.

ART 243 Portrait Painting   0   6   3

Prerequisites: ART 240
Corequisites: None
This course covers the portrait as subject matter by use of live models. Topics include composition, color mixing, and the history of portraiture. Upon completion, students should be able to demonstrate competence in the traditional approach to portrait painting.

ART 244 Watercolor   0   6   3

Prerequisites:
Corequisites: None
This course introduces basic methods and techniques used in watercolor. Emphasis is placed on application, materials, content, and individual expression. Upon completion, students should be able to demonstrate a variety of traditional and nontraditional concepts used in watercolor media.

ART 245 Metals I   0   6   3

Prerequisites: ART 121
Corequisites: None
This course introduces basic metal design in traditional and contemporary art forms using brass, copper, and silver. Emphasis is placed on designing and fabricating jewelry, small sculptures, and utilitarian objects. Upon completion, students should be able to design and produce small art objects.

ART 246 Metals II   0   6   3

Prerequisites: ART 245
Corequisites: None
This course provides a continuation of metal design utilizing basic methods of casting and other processes. Emphasis is placed on individualized design. Upon completion, students should be able to design and produce expressive forms.

ART 247 Jewelry I   0   6   3

Prerequisites:
Corequisites: None
This course introduces a basic understanding of the design and production of jewelry. Emphasis is placed on concepts and techniques using metals and other materials. Upon completion, students should be able to demonstrate an ability to use appropriate methods to create unique jewelry. Processes such as piercing, filing, forming and forging will be introduced.

ART 248 Jewelry II   0   6   3

Prerequisites: ART 247
Corequisites: None
This course is a continuation of the skills learned in ART 247. Emphasis is placed on the creation of individual designs that utilize a variety of techniques such as casting, cloisonné, and plique-a-jour. Upon completion, students should be able to create jewelry which demonstrates originality.

ART 250 Surface Design: Textiles   0   6   3

Prerequisites:
Corequisites: None
This course introduces the basic principles and elements of art as applied to textile surfaces. Emphasis is placed on direct, top-dyed processes that utilize both synthetic and natural dyes, and techniques such as batiking, stenciling, and stamping. Upon completion, students should be able to demonstrate a basic understanding of appropriate materials and techniques as they apply to original design on a variety of textile surfaces.

ART 251   Weaving I   0   6   3

Prerequisites:
Corequisites: None
This course provides a basic understanding of the design and production of constructed textiles. Emphasis is placed on traditional weaving techniques. Upon completion, students should be able to warp and dress the loom and use appropriate techniques for the creation of unique woven fabrics.

ART 252   Weaving II   0   6   3

Prerequisites: Art 251
Corequisites: None
This course furthers an exploration of creative design as it relates to manipulated fiber construction. Emphasis is placed on traditional and experimental methods. Upon completion, students should be able to create fiber constructions that utilize appropriate techniques for individual expressive designs.

ART 260 Photography Appreciation   3   0   3

Prerequisites:
Corequisites: None
This course introduces the origins and historical development of photography. Emphasis is placed on the study of composition and history of photography as an art form. Upon completion, students should be able to recognize and produce, using color transparencies, properly exposed, well-composed photographs. Using their own 35mm cameras, students will receive instruction and practice in camera handling, films, filters, lenses, and composition.

ART 261 Photography I   1   4   3

Prerequisites: ART 260
Corequisites: None
This course introduces photographic equipment, theory, and processes. Emphasis is placed on camera operation, composition, darkroom technique, and creative expression. Upon completion, students should be able to successfully expose, develop, and print a well-conceived composition. Using their own 35mm camera to take photographs, students will develop printing techniques such as burning, dodging, controlling density and contrast, and basic photo finishing.

ART 262 Photography II   1   4   3

Prerequisites: ART 261
Corequisites: None
This course introduces the creative manipulation of alternative photographic materials and processes such as toning, hand coloring, infrared, and multiple exposure. Emphasis is placed on personal vision and modes of seeing. Upon completion, students should be able to create properly exposed images using a variety of photographic materials and processes.

ART 263 Color Photography   0   6   3

Prerequisites: ART 262
Corequisites: None
This course provides an introduction to the procedures and processes involved in color photography. Emphasis is placed on the study of light, filtration, exposure, and films along with the processing and printing of color negative materials. Upon completion, students should be able to demonstrate an understanding of color principles, theories, and processes by using them creatively in the production of color prints.

ART 271 Computer Art II   1   4   3

Prerequisites: ART 171
Corequisites: None
This course includes advanced computer imaging techniques. Emphasis is placed on creative applications of digital technology. Upon completion, students should be able to demonstrate command of computer systems and applications to express their personal vision.

ART 281 Sculpture I   0   6   3

Prerequisites:
Corequisites: None
This course provides an exploration of the creative and technical methods of sculpture with focus on the traditional processes. Emphasis is placed on developing basic skills as they pertain to three-dimensional expression in various media. Upon completion, students should be able to show competence in a variety of sculptural approaches. Students will develop an understanding of historical as well as contemporary ideas related to sculpture.

ART 282 Sculpture II   0   6   3

Prerequisites: ART 281
Corequisites: None
This course builds on the visual and technical skills learned in ART 281. Emphasis is placed on developing original solutions to sculptural problems in a variety of media. Upon completion, students should be able to express individual ideas using the techniques and materials of sculpture. Students will be expected to be experiential in their concepts and approaches to sculpture.

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ART 283 Ceramics I   0   6   3

Prerequisites:
Corequisites: None
This course provides an introduction to three-dimensional design principles using the medium of clay. Emphasis is placed on fundamentals of forming, surface design, glaze application, and firing. Upon completion, students should be able to demonstrate skills in slab and coil construction, simple wheel forms, glaze technique, and creative expression. Assignments are structured to encourage students to explore their own personal expression.

ART 284 Ceramics II   0   6   3

Prerequisites: ART 283
Corequisites: None
This course covers advanced hand building and wheel techniques. Emphasis is placed on creative expression, surface design, sculptural quality, and glaze effect. Upon completion, students should be able to demonstrate a high level of technical competence in forming and glazing with a development of three-dimensional awareness. The aesthetics of pottery form are explored.

ART 285 Ceramics III   0   6   3

Prerequisites: ART 284
Corequisites: None
This course provides the opportunity for advanced self-determined work in sculptural and functional ceramics. Emphasis is placed on developing the technical awareness of clay bodies, slips, engobes, and firing procedures necessary to fulfill the student's artistic goals. Upon completion, students should be able to demonstrate a knowledge of materials and techniques necessary to successfully create original projects in the clay medium. Through contractual agreement with the instructor, students continue to explore personal expression using the medium of clay.

ART 286 Ceramics IV   0   6   3

Prerequisites: ART 285
Corequisites: None
This course provides the opportunity for self-determined work in sculptural and functional ceramics. Emphasis is placed on developing the technical awareness of glaze materials, glaze formulation, and firing techniques necessary to fulfill the student's artistic goals. Upon completion, students should be able to demonstrate knowledge of materials and techniques necessary to successfully create original projects in the clay medium. Through contractual agreement with the instructor, students continue to explore personal expression using the medium of clay.

ART 288 Studio   0   6   3

Prerequisites:
Corequisites: None
This course provides the opportunity for advanced self-determined work beyond the limits of regular studio course sequences. Emphasis is placed on creative self-expression and in-depth exploration of techniques and materials. Upon completion, students should be able to create original projects specific to media, materials, and techniques. Through contractual agreement with the instructor, students will continue to explore personal expressions in their chosen media.

ART 289 Museum Study   2   2   3

Prerequisites:
Corequisites: None
This course introduces research methods in the museum setting. Emphasis is placed on the chronology, styles, periods, context, and meaning in art. Upon completion, students should be able to demonstrate the advantage of first-hand and on-site research.

ART 291 Selected Topics in Art   1   0-3   1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 292 Selected Topics in Art   0-2   0-6   2

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 293 Selected Topics in Art   1-3   0-6   3

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 296 Seminar in Art   0-1   0-3   1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ART 297 Seminar in Art   0-2   0-6   2

Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ART 298 Seminar in Art   3   0   3

Prerequisites: Enrollment in the Honors program
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions. This is an honors course and permission to enroll must be gained from the Honors Program Office.

AST - Astronomy

	Lecture	Lab	Credit
AST 111 Descriptive Astronomy	3	0	3

Prerequisites:
Corequisites: None
This course introduces an overall view of modern astronomy. Topics include an overview of the solar system, the sun, stars, galaxies, and the larger universe. Upon completion, students should be able to demonstrate an understanding of the universe around them. To receive science credit toward the AA or AS degree you must register for and complete AST 111A. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

	Lecture	Lab	Credit
AST 111A Descriptive Astronomy Lab	0	2	1

Prerequisites:
Corequisites: AST 111
The course is a laboratory to accompany AST 111. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 111 and which provide practical experience. Upon completion, students should be able to demonstrate an understanding of the universe around them. This course may be taken concurrently or subsequent to the completion of AST 111. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

	Lecture	Lab	Credit
AST 251 Observational Astronomy	1	3	2

Prerequisites: AST 111 or AST 152
Corequisites: None
This course covers the operation of the telescope and related observatory equipment. Emphasis is placed on the use of the telescope and related observatory equipment, including techniques of data collection, measurements, and data analysis. Upon completion, students should be able to set up a telescope and use the coordinate system to locate objects, collect data, and make measurements with the telescope.

ATR - Automation Training

See also DDF Design Drafting, DFT Drafting, ISC Industrial Science, and MEC Mechanical Engineering Technology for other courses.

	Lecture	Lab	Credit
ATR 112	2	3	3

Prerequisites:
Crequisites: None
This course introduces the basic principles of automated manufacturing and describes the tasks that technicians perform on the job. Topics include the history, development, and current applications of robots and automated systems including their configuration, operation, components, and controls. Upon completion, students should be able to understand the basic concepts of automation and robotic systems.

	Lecture	Lab	Credit
ATR 211 Robot Programming	2	3	3

Prerequisites: CIS 110
Crequisites: None
This course provides the operational characteristics of industrial robots and programming in their respective languages. Topics include robot programming utilizing teach pendants, PLCs, and personal computers; and the interaction of external sensors, machine vision, network systems, and other related devices. Upon completion, students should be able to program and demonstrate the operation of various robots.

AUB - Automotive Body Repair

	Lecture	Lab	Credit
AUB 111 Painting & Refinishing I	2	6	4

Prerequisites:
Corequisites: None
This course introduces the proper procedures for using automotive refinishing equipment and materials in surface preparation and application. Topics include federal, state, and local regulations, personal safety, refinishing equipment and materials, surface preparation, masking, application techniques, and other related topics. Upon completion, students should be able to identify and use proper equipment and materials in refinishing following accepted industry standards.

	Lecture	Lab	Credit
AUB 112 Painting & Refinishing II	2	6	4

Prerequisites: AUB 111
Corequisites: None
This course covers advanced painting techniques and technologies with an emphasis on identifying problems encountered by the refinishing technician. Topics include materials application, color matching, correction of refinishing problems, and other related topics. Upon completion, students should be able to perform spot, panel, and overall refinishing repairs and identify and correct refinish problems.

	Lecture	Lab	Credit
AUB 114 Special Finishes	1	2	2

Prerequisites: AUB 111
Corequisites: None
This course introduces multistage finishes, custom painting, and protective coatings. Topics include base coats, advanced intermediate coats, clear coats, and other related topics. Upon completion, students should be able to identify and apply specialized finishes based on accepted industry standards.

	Lecture	Lab	Credit
AUB 121 Non-Structural Damage I	1	4	3

Prerequisites:
Corequisites: None
This course introduces safety, tools, and the basic fundamentals of body repair. Topics include shop safety, damage analysis, tools and equipment, repair techniques, materials selection, materials usage, and other related topics. Upon completion, students should be able to identify and repair minor direct and indirect damage including removal/repairing/replacing of body panels to accepted standards.

	Lecture	Lab	Credit
AUB 122 Non-Structural Damage II	2	6	4

Prerequisites:
Corequisites: None
This course covers safety, tools, and advanced body repair. Topics include shop safety, damage analysis, tools and equipment, advanced repair techniques, materials selection, materials usage, movable glass, and other related topics. Upon completion, students should be able to identify and repair or replace direct and indirect damage to accepted standards including movable glass and hardware.

AUB 131 Structural Damage I 2 4 4

Prerequisites:
Corequisites: None
This course introduces safety, equipment, structural damage analysis, and damage repairs. Topics include shop safety, design and construction, structural analysis and measurement, equipment, structural glass, repair techniques, and other related topics. Upon completion, students should be able to analyze and perform repairs to a vehicle which has received light/moderate structural damage.

AUB 132 Structural Damage II 2 6 4

Prerequisites: AUB 131
Corequisites: None
This course provides an in-depth study of structural damage analysis and repairs to vehicles that have received moderate to heavy structural damage. Topics include shop safety, structural analysis and measurement, equipment, structural glass, advanced repair techniques, structural component replacement and alignment, and other related topics. Upon completion, students should be able to analyze and perform repairs according to industry standards.

AUB 134 Autobody MIG Welding 1 4 3

Prerequisites:
Corequisites: None
This course covers the terms and procedures for welding the various metals found in today's autobody repair industry with an emphasis on personal/environmental safety. Topics include safety and precautionary measures, setup/operation of MIG equipment, metal identification methods, types of welds/joints, techniques, inspection methods, and other related topics. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standards.

AUB 136 Plastics & Adhesives 1 4 3

Prerequisites:
Corequisites: None
This course covers safety, plastic and adhesive identification, and the various repair methods of automotive plastic components. Topics include safety, identification, preparation, material selection, and the various repair procedures including refinishing. Upon completion, students should be able to identify, remove, repair, and/or replace automotive plastic components in accordance with industry standards.

AUB 141 Mechanical & Electrical Components I 2 2 3

Prerequisites:
Corequisites: None
This course covers the basic principles of automotive mechanical and electrical components. Topics include personal and environmental safety and suspension and steering, electrical, brake, heating and air-conditioning, cooling, drive train, and restraint systems. Upon completion, students should be able to identify system components and perform basic system diagnostic checks and/or repairs according to industry standards.

AUB 162 Autobody Estimating 1 2 2

Prerequisites:
Corequisites: None
This course provides a comprehensive study of autobody estimating. Topics include collision damage analysis, industry regulations, flat-rate and estimated time, and collision estimating manuals. Upon completion, students should be able to prepare and interpret a damage report.

AUT - Automotive Technology

Lecture Lab Credit

AUT 110 Introduction to Auto Technology 2 2 3

Prerequisites:
Corequisites: None
This course covers the basic concepts and terms of automotive technology, workplace safety, North Carolina state inspection, safety and environmental regulations, and use of service information resources. Topics include familiarization with components along with identification and proper use of various automotive hand and power tools. Upon completion, students should be able to describe terms associated with automobiles, identify and use basic tools and shop equipment, and conduct North Carolina safety/emissions inspections.

AUT 113 Automotive Servicing 2 6 4

Prerequisites: AUT 115, AUT 141, AUT 151, AUT 161, AUT 171
Corequisites: None
This course covers diagnostic procedures necessary to determine the nature and cause of auto service problems and the procedures used to repair/replace components. Emphasis is placed on troubleshooting, testing, adjusting, repairing, and replacing components using appropriate test equipment and service information. Upon completion, students should be able to perform a variety of automotive repairs using proper service procedures and operate appropriate equipment.

AUT 115 Engine Fundamentals 2 3 3

Prerequisites:
Corequisites: None
This course covers the theory, construction, inspection, diagnosis, and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis/repair of automotive engines using appropriate tools, equipment, procedures, and service information.

AUT 116 Engine Repair 1 3 2

Prerequisites: AUT 115
Corequisites: None
This course covers service/repair/rebuilding of block, head, and internal engine components. Topics include engine repair/reconditioning using service specifications. Upon completion, students should be able to rebuild/recondition an automobile engine to service specifications.

AUT 141 Suspension & Steering Systems 2 4 4

Prerequisites:
Corequisites: None
This course covers principles of operation, types, and diagnosis/repair of suspension and steering systems to include steering geometry. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair various steering and suspension components, check and adjust various alignment angles, and balance wheels.

AUT 151 Brake Systems   2   2   3

Prerequisites:

Corequisites: None

This course covers principles of operation and types, diagnosis, service, and repair of brake systems. Topics include drum and disc brakes involving hydraulic, vacuum boost, hydraboost, electrically powered boost, and anti-lock and parking brake systems. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

AUT 152 Brake Systems Lab   0   2   1

Prerequisites:

Corequisites: AUT 151

This course provides a laboratory setting to enhance brake system skills. Emphasis is placed on practical experiences that enhance the topics presented in AUT 151. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in AUT 151.

AUT 161 Electrical Systems   2   6   4

Prerequisites:

Corequisites: None

This course covers basic electrical theory and wiring diagrams, test equipment, and diagnosis/repair/replacement of batteries, starters, alternators, and basic electrical accessories. Topics include diagnosis and repair of battery, starting, charging, lighting, and basic accessory systems problems. Upon completion, students should be able to diagnose, test, and repair the basic electrical components of an automobile.

AUT 162 Chassis Elect & Electronics   2   2   3

Prerequisites: AUT 164

Corequisites: None

This course covers electrical/electronic diagnosis/repair, including wiring diagrams, instrumentation, and electronic/computer-controlled devices and accessories. Topics include interpreting wiring diagrams and diagnosis and repair of chassis electrical and electronic systems. Upon completion, students should be able to read and interpret wiring diagrams and determine/perform needed repairs on chassis electrical and electronic systems.

AUT 164 Automotive Electronics   2   2   3

Prerequisites: AUT 161

Corequisites: None

This course covers fundamentals of electrical/electronic circuitry, semi-conductors, and microprocessors. Topics include Ohm's law, circuits, AC/DC current, solid state components, digital applications, and the use of digital multimeters. Upon completion, students should be able to apply Ohm's law to diagnose and repair electrical/electronic circuits using digital multimeters and appropriate service information.

AUT 171 Heating & Air Conditioning   2   3   3

Prerequisites:

Corequisites: None

This course covers the theory of refrigeration and heating, electrical/electronic/pneumatic controls, and diagnosis/repair of climate control systems. Topics include diagnosis and repair of climate control components and systems, recovery/recycling of refrigerants, and safety and environmental regulations. Upon completion, students should be able to describe the operation, diagnose, and safely service climate control systems using appropriate tools, equipment, and service information.

AUT 183 Engine Performance-Fuels   2   3   3

Prerequisites:

Corequisites: None

This course covers the principles of fuel delivery/management, exhaust/emission systems, and procedures for diagnosing and restoring engine performance using appropriate test equipment. Topics include procedures for diagnosis/repair of fuel delivery/management and exhaust/emission systems using appropriate service information. Upon completion, students should be able to describe, diagnose, and repair engine fuel delivery/management and emission control systems using appropriate service information and diagnostic equipment.

AUT 184 Engine Performance-Fuels Lab   0   3   1

Prerequisites:

Corequisites: AUT 183

This course provides a laboratory setting to enhance the skills for diagnosing and repairing fuel delivery/management and emission systems. Emphasis is placed on practical experiences that enhance the topics presented in AUT 183. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in AUT 183.

AUT 186 Automotive Computer Appl   1   2   2

Prerequisites: None

Corequisites: None

This course introduces computer operating systems, word processing and electronic automotive service information systems. Emphasis is placed on operation systems, word processing, and electronic automotive service information systems. Upon completion, students should be able to use an operating system to access information pertaining to automotive technology and perform word processing.

AUT 221 Automatic Transmissions   2   6   4

Prerequisites:

Corequisites: None

This course covers operation, diagnosis, service, and repair of automatic transmissions/transaxles. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair automatic drive trains.

AUT 231 Manual Drive Trains/Axles   2   3   3

Prerequisites:

Corequisites: None

This course covers the operation, diagnosis, and repair of manual transmissions/transaxles, clutches, driveshafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train service and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair manual drive trains.

AUT 281 Adv Engine Performance   2   2   3

Prerequisites: AUT 161, AUT 183

Corequisites: None

This course utilizes service information and specialized test equipment to diagnose/repair power train control systems. Topics include computerized ignition, fuel and emission systems, related diagnostic tools and equipment, data communication networks, and service information. Upon completion, students should be able to perform advanced engine performance diagnosis and repair.

BIO - Biology

	Lecture	Lab	Credit

BIO 110   Principles of Biology   3   3   4
Prerequisites:
Corequisites: None
This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, taxonomy, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

BIO 111   General Biology I   3   3   4
Prerequisites:
Corequisites: None
This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

BIO 112   General Biology II   3   3   4
Prerequisites: BIO 111 or equivalent
Corequisites: None
This course is a continuation of BIO 111. Emphasis is placed on organisms, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

BIO 120   Introductory Botany   3   3   4
Prerequisites: BIO 110, BIO 111 BIO 1500, BIO 1502
          or equivalent
Corequisites: None
This course provides an introduction to the classification, relationships, structure, and function of plants. Topics include reproduction and development of seed and non-seed plants, levels of organization, form and function of systems, and a survey of major taxa. Upon completion, students should be able to demonstrate comprehension of plant form and function, including selected taxa of both seed and non-seed plants. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

BIO 130   Introductory Zoology   3   3   4
Prerequisites: BIO 110, BIO 111 BIO 1500, BIO 1501
          or equivalent
Corequisites: None
This course provides an introduction to the classification, relationships, structure, and function of major animal phyla. Emphasis is placed on levels of organization, reproduction and development, comparative systems, and a survey of selected phyla. Upon completion, students should be able to demonstrate comprehension of animal form and function including compara-

tive systems of selected groups. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

BIO 143   Field Biology Minicourse   1   2   2
Prerequisites:
Corequisites: None
This course introduces the biological and physical components of a field environment. Emphasis is placed on a local field environment with extended field trips to other areas. Upon completion, students should be able to demonstrate an understanding of the biological and physical components of the specific biological environment.

BIO 145   Ecology   3   3   4
Prerequisites: BIO 110 or BIO 111
Corequisites: None
This course provides an introduction to ecological concepts using an ecosystems approach. Topics include energy flow, nutrient cycling, succession, population dynamics, community structure, and other related topics. Upon completion, students should be able to demonstrate comprehension of basic ecosystem structure and dynamics.

BIO 155   Nutrition   3   0   3
Prerequisites:
Corequisites: None
This course covers the biochemistry of foods and nutrients with consideration of the physiological effects of specialized diets for specific biological needs. Topics include cultural, religious, and economic factors that influence a person's acceptance of food as well as nutrient requirements of the various life stages. Upon completion, students should be able to identify the functions and sources of nutrients, the mechanisms of digestion, and the nutritional requirements of all age groups.

BIO 161   Intro to Human Biology   3   0   3
Prerequisites:
Corequisites: None
This course provides a basic survey of human biology. Emphasis is placed on the basic structure and function of body systems and the medical terminology used to describe normal and pathological states. Upon completion, students should be able to demonstrate an understanding of normal anatomy and physiology and the appropriate use of medical terminology.

BIO 163   Basic Anatomy & Physiology   4   2   5
Prerequisites:
Corequisites: None
This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships.

BIO 168   Anatomy and Physiology I   3   3   4
Prerequisites:
Corequisites: None
This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, nervous, special senses, and endocrine systems. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiol-

ogy and their interrelationships.

BIO 169   Anatomy and Physiology II   3   3   4
Prerequisites: BIO 168 BIO 1504 or equivalent
Corequisites: None
This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.

BIO 170   Introductory Microbiology   3   3   4
Prerequisites:
Corequisites: None
This course introduces fundamental concepts of microbiology with emphasis on the relationships of microorganisms to humans. Topics include common groups of microorganisms and their relationships to human disease, including means of transmission, body defenses, prevention, control, and treatment. Upon completion, students should be able to practice and recognize the value of aseptic technique in microbial control.

BIO 175   General Microbiology   2   2   3
Prerequisites: BIO 110, BIO 163, BIO 166, BIO 169, BIO
                     1500, BIO 1505 or equivalent
Corequisites: None
This course covers principles of microbiology with emphasis on microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques.

BIO 191   Selected Topics in Biology   0-1   0-3   1
Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Students wishing to take any biology topics course must have an instructor's permission.

BIO 193   Selected Topics in Biology   1-3   0-6   3
Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Students wishing to take any biology topics must have an instructor's permission.

BIO 230   Entomology   3   3   4
Prerequisites: BIO 110, BIO 112 BIO 1500 or equivalent
Corequisites: None
This course covers the biology of insects. Topics include harmful and beneficial insects, their identification, classification, life cycles, behavior, distribution, economic importance, and the methods involved in collection and preservation. Upon completion, students should be able to identify common insects and describe their biology and ecology.

BIO 235   Ornithology   3   3   4
Prerequisites: BIO 110, BIO 111 BIO 1500 or equivalent
Corequisites: None
This course introduces the biology of birds. Emphasis is placed on the systematic, recognition, distribution, anatomy, physiology, behavior, and ecology of birds. Upon completion, students should be able to identify various avian species and demonstrate a knowledge of their biology and ecology.

BIO 243   Marine Biology   3   3   4
Prerequisites: BIO 110 or BIO 111
Corequisites: None
This course covers the physical and biological components of the marine environment. Topics include major habitats, the diversity of organisms, their biology and ecology, marine productivity, and the use of marine resources by humans. Upon completion, students should be able to identify various marine habitats and organisms and to demonstrate a knowledge of their biology and ecology

BIO 271   Pathophysiology   3   0   3
Prerequisites: BIO 163, BIO 166, BIO 169, BIO 1500
                     or equivalent
Corequisites: None
This course provides an in-depth study of human pathological processes and their effects on homeostasis. Emphasis is placed on interrelationships among organ systems in deviations from homeostasis. Upon completion, students should be able to demonstrate a detailed knowledge of pathophysiology.

BIO 272   Cardiopulmonary Biology   2   2   3
Prerequisites: BIO 166, BIO 169 BIO 1505 or equivalent
Corequisites: None
This course provides an in-depth study of cardiovascular and respiratory functions and their relationships. Emphasis is placed on the interpretation of blood gases and other analytical measurements. Upon completion, students should be able to demonstrate a detailed knowledge of circulatory and respiratory anatomy and physiology.

BIO 275   Microbiology   3   3   4
Prerequisites: BIO 110, BIO 112, BIO 163, BIO 165, or
                     BIO 168, BIO 1500, BIO 1504 or equivalent
Corequisites: None
This course covers principles of microbiology and the impact these organisms have on man and the environment. Topics include the various groups of microorganisms, their structure, physiology, genetics, microbial pathogenicity, infectious diseases, immunology, and selected practical applications. Upon completion, students should be able to demonstrate knowledge and skills including microscopy, aseptic technique, staining, culture methods, and identification of microorganisms.

BIO - Advancement Studies (BIO 094)

See Pre-College section of this catalog.

BPR - Blueprint Reading

	Lecture	Lab	Credit

BPR 111 Blueprint Reading   1   2   2
Prerequisites:
Corequisites: None
This course introduces the basic principles of blueprint reading. Topics include line types, orthographic projections, dimen-

sioning methods, and notes. Upon completion, students should be able to interpret basic blueprints and visualize the features of a part.

BUS - Business

	Lecture	Lab	Credit

BUS 110 Introduction to Business   3   0   3

Prerequisites:
Corequisites: None
This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects.

BUS 115 Business Law I   3   0   3

Prerequisites:
Corequisites: None
This course introduces the ethics and legal framework of business. Emphasis is placed on contracts, negotiable instruments, Uniform Commercial Code, and the working of the court systems. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations.

BUS 116 Business Law II   3   0   3

Prerequisites: BUS 115
Corequisites: None
This course continues the study of ethics and business law. Emphasis is placed on bailments, sales, risk-bearing, forms of business ownership, and copyrights. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations.

BUS 121 Business Math   2   2   3

Prerequisites:
Corequisites: None
This course covers fundamental mathematical operations and their application to business problems. Topics include payroll, pricing, interest and discount, commission, taxes, and other pertinent uses of mathematics in the field of business. Upon completion, students should be able to apply mathematical concepts to business.

BUS 125 Personal Finance   3   0   3

Prerequisites:
Corequisites: None
This course provides a study of individual and family financial decisions. Emphasis is placed on building useful skills in buying, managing finances, increasing resources, and coping with current economic conditions. Upon completion, students should be able to develop a personal financial plan.

BUS 135 Principles of Supervision   3   0   3

Prerequisites:
Corequisites: None
This course introduces the basic responsibilities and duties of the supervisor and his/her relationship to higher-level supervisors, subordinates, and associates. Emphasis is placed on effective utilization of the work force and understanding the role of the supervisor. Upon completion, students should be able to apply supervisory principles in the work place.

BUS 137 Principles of Management   3   0   3

Prerequisites:
Corequisites: None
This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management.

BUS 153 Human Resource Management   3   0   3

Prerequisites:
Corequisites: None
This course introduces the functions of personnel/human resource management within an organization. Topics include equal opportunity and the legal environment, recruitment and selection, performance appraisal, employee development, compensation planning, and employee relations. Upon completion, students should be able to anticipate and resolve human resource concerns.

BUS 210 Investment Analysis   3   0   3

Prerequisites: ACC 111 or ACC 120
Corequisites: None
This course examines the concepts related to financial investment and the fundamentals of managing investments. Emphasis is placed on the securities markets, stocks, bond, and mutual funds, as well as tax implications of investment alternatives. Upon completion, students should be able to analyze and interpret investment alternatives and report findings to users of financial information.

BUS 220 Purchasing   3   0   3

Prerequisites:
Corequisites: None
This course introduces the purchasing function and explains its role in business. Topics include the legal and ethical aspects of purchasing, quality assurance, and the application of purchasing formulas and methods for cost analysis. Upon completion, students should be able to complete a purchase transaction incorporating legal, ethical, quality, and cost considerations.

BUS 225 Business Finance   2   2   3

Prerequisites: ACC 120
Corequisites: None
This course provides an overview of business financial management. Emphasis is placed on financial statement analysis, time value of money, management of cash flow, risk and return, and sources of financing. Upon completion, students should be able to interpret and apply the principles of financial management.

BUS 228 Business Statistics   2   2   3

Prerequisites: MAT 161 or MAT 115 or MAT 140
Corequisites: None
This course introduces the use of statistical methods and tools in evaluating research data for business applications. Emphasis is placed on basic probability, measures of spread and dispersion, central tendency, sampling, regression analysis, and inductive inference. Upon completion, students should be able to apply statistical problem solving to business.

BUS 230 Small Business Management   3   0   3

Prerequisites:
Corequisites: None
This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics

include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision making. Upon completion, students should be able to develop a small business plan.

BUS 231 Computerized Inventory   2   2   3

Prerequisites: ACC 120 and CIS 110 or CIS 111
Corequisites: None

This course provides an overview of inventory procedures as related to management decisions. Emphasis is placed on general terms, methods, techniques, and computer applications. Upon completion, students should be able to apply inventory principles and processes in the workplace included in BUS 151. Topics include causes for communication breakdown, behavior styles, and advanced techniques for assertiveness and conflict resolution in the business environment. Upon completion, students should be able to recognize and handle conflict situations and the difficult people who create them.

BUS 255 Org Behavior in Business   3   0   3

Prerequisites:
Corequisites: None

This course covers the impact of different management practices and leadership styles on worker satisfaction and morale, organizational effectiveness, productivity, and profitability. Topics include a discussion of formal and informal organizations, group dynamics, motivation, and managing conflict and change. Upon completion, students should be able to analyze different types of interpersonal situations and determine an appropriate course of action.

BUS 260 Business Communication   3   0   3

Prerequisites: ENG 111
Corequisites: None

This course is designed to develop skills in writing business communications. Emphasis is placed on business reports, correspondence, and professional presentations. Upon completion, students should be able to communicate effectively in the work place.

Career Assessment

(See ACA Academic / Life Skills)

CHM - Chemistry

	Lecture	Lab	Credit

CHM 115 Concepts in Chemistry   3   0   3

Prerequisites:
Corequisites: CHM 115A or equivalent

This course introduces basic chemical concepts and their applications to daily life for non-science majors. Topics include air pollution, global warming, energy, world of polymers, water and its importance to a technological society, food, drugs, and nuclear chemistry. Upon completion, students should be able to discuss, apply, and appreciate the impact of chemistry on modern society. You must register for both CHM 115 and CHM 115A unless you have received prior credit for one of these classes.

CHM 115A Concepts in Chemistry Laboratory   0   2   1

Prerequisites:
Corequisites: CHM 115 or equivalent

This course is a laboratory for CHM 115. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 115. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical concepts presented in CHM 115. You must register for both CHM 115 and CHM 115A unless you have received prior credit for one of these classes.

CHM 121 Foundations of Chemistry   3   0   3

Prerequisites: MAT 080, MAT 9510 or equivalent
Corequisites: CHM 121A or equivalent

This course is designed for those who have no previous high school chemistry or a grade of C or less in high school chemistry. Topics include matter, structure of the atom, nomenclature, chemical equations, bonding and reactions; mathematical topics include measurements, scientific notation, and stoichiometry. Upon completion, students should be able to demonstrate an understanding of chemical concepts and an ability to solve related problems in subsequent chemistry courses. You must register for both CHM 121 and CHM 121A unless you have received prior credit for one of these classes.

CHM 121A Foundations of Chemistry Laboratory   0   2   1

Prerequisites:
Corequisites: CHM 121 or equivalent

This course is a laboratory for CHM 121. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 121. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 121. You must register for both CHM 121 and CHM 121A unless you have received prior credit for one of these classes.

CHM 130 General, Organic and Biochemistry   3   0   3

Prerequisites: MAT 080, MAT 9510 or equivalent
Corequisites: CHM 130A or equivalent

This course provides a survey of basic facts and principles of general, organic, and biochemistry. Topics include measurement, molecular structure, nuclear chemistry, solutions, acid-base chemistry, gas laws, and the structure, properties, and reactions of major organic and biological groups. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts. This class is recommended for Allied Health programs and you must register for both CHM 130 and CHM 130A unless you have received prior credit for one of these classes.

CHM 130A General, Organic and Biochemistry Lab   0   2   1

Prerequisites:
Corequisites: CHM 130 or equivalent

This course is a laboratory for CHM 130. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 130. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 130. You must register for both CHM 130 and CHM 130A unless you have received prior credit for one of these classes.

CHM 131 Introduction to Chemistry   3   0   3

Prerequisites: MAT 080, MAT 9510 along with CHM 121 and CHM 121A CHM 1500 or equivalent (High School Algebra and Chemistry)
Corequisites: CHM 131A or equivalent

This course introduces the fundamental concepts of inorganic chemistry. Topics include measurement, matter and energy, atomic and molecular structure, nuclear chemistry, stoichiometry, chemical formulas and reactions, chemical bonding, gas

laws, solutions, and acids and bases. Upon completion, students should be able to demonstrate a basic understanding of chemistry as it applies to other fields. You must register for both CHM 131 and CHM 131A unless you have received prior credit for one of these classes. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

CHM 131A Introduction to Chemistry Lab   0   3   1

Prerequisites:
Corequisites: CHM 131 or equivalent
This course is a laboratory to accompany CHM 131. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 131. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 131. You must register for both CHM 131 and CHM 131A unless you have received prior credit for one of these classes. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

CHM 132 Organic and Biochemistry   3   3   4

Prerequisites: CHM 131, CHM 1501 or equivalent
Corequisites: None
This course provides a survey of major functional classes of compounds in organic and biochemistry. Topics include structure, properties, and reactions of the major organic and biological molecules and basic principles of metabolism. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts needed to pursue studies in related professional fields. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

CHM 151 General Chemistry I   3   3   4

Prerequisites: MAT 080, MAT 9510 along with CHM 121 and CHM 121A or CHM 1500 or equivalent (High School Algebra and Chemistry)
Corequisites: None
This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

CHM 152 General Chemistry II   3   3   4

Prerequisites: CHM 151, CHM 1505 or equivalent
Corequisites: None
This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

CHM 191 Selected Topics in Chemistry   0-1   0-3   1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Student wishing to take any chemistry topics courses must have completed two semesters of chemistry and have instructor permission.

CHM 193 Selected Topics in Chemistry   1-3   0-6   3

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Student wishing to take any chemistry topics courses must have completed two semesters of chemistry and have instructor permission.

CHM 251 Organic Chemistry I   3   3   4

Prerequisites: CHM 152, CHM 1506 or equivalent
Corequisites: None
This course provides a systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of hydrocarbons, alkyl halides, alcohols, and ethers; further topics include isomerization, stereochemistry, and spectroscopy. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of covered organic topics as needed in CHM 252.

CHM 252 Organic Chemistry II   3   3   4

Prerequisites: CHM 251 CHM 2614 or equivalent
Corequisites: None
This course provides continuation of the systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of aromatics, aldehydes, ketones, carboxylic acids and derivatives, amines and heterocyclics; multi-step synthesis will be emphasized. Upon completion, students should be able to demonstrate an understanding of organic concepts as needed to pursue further study in chemistry and related professional fields.

CHM 293 Selected Topics in Chemistry   1-3   0-6   3

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Students wishing to take CHM 293 must have completed three semesters of chemistry and have instructor permission.

CHM - Advancement Studies (CHM 090)

See Pre-College section of this catalog.

CIV - Civil Engineering Technology

(See also SRV Surveying Technology, and EGR Engineering for other Course Descriptions)

	Lecture	Lab	Credit

CIV 110   Statics/Strength of Materials   2   6   4

Prerequisites: MAT 121 or MAT 171
Corequisites: None
This course includes vector analysis, equilibrium of force systems, friction, sectional properties, stress/strain, and deformation. Topics include resultants and components of forces, moments and couples, free-body diagrams, shear and moment diagrams, trusses, frames, beams, columns, connections, and combined stresses. Upon completion, students should be able to analyze simple structures.

CIV 111   Soils and Foundations   2   3   3

Prerequisites: CIV 110 or MEC 250
Corequisites: None
This course presents an overview of soil as a construction material using both analysis and testing procedures. Topics include index properties, classification, stress analysis, compressibility, compaction, dewatering, excavation, stabilization, settlement, and foundations. Upon completion, students should be able to perform basic soil tests and analyze engineering properties of soil.

CIV 125   Civil/Surveying CAD   1   6   3

Prerequisites: CIS 111 SRV 110
Corequisites: None
This course introduces civil/surveying computer-aided drafting (CAD) software. Topics include drawing, editing, and dimensioning commands; plotting; and other related civil/surveying topics. Upon completion, students should be able to produce civil/surveying drawings using CAD software.

CIV 192   Selected Topics in Civil Engineering Technology   1   3   2

Prerequisites: Enrollment in the program or Division Consent
Corequisites: None
This course provides an opportunity to explore topics of current interest in Civil Engineering Technology. Emphasis is placed on subject matter appropriate to Civil Engineering Technology. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

CIV 198   Seminar in Civil Engineering Technology   2   3   3

Prerequisites: Enrollment in the Civil Engineering Technology Program
Corequisites: None
This course provides an opportunity to explore topics of current interest in Civil Engineering Technology. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

CIV 210   Engineering Materials   1   3   2

Prerequisites: CIV 110
Corequisites: None
This course covers the behavior and properties of Portland cement and asphaltic concretes and laboratory and field testing. Topics include cementing agents and aggregates; water and admixtures; proportioning, production, placing, consolidation, and curing; and inspection methods. Upon completion, students should be able to proportion concrete mixes to attain predetermined strengths and other properties and perform standard control tests.

CIV 211   Hydraulics and Hydrology   2   3   3

Prerequisites: CIV 110 or MEC 250
Corequisites: None
This course introduces the basic engineering principles and characteristics of hydraulics and hydrology. Topics include precipitation and runoff, fluid statics and dynamics, flow measurement, and pipe and open channel flow. Upon completion, students should be able to analyze and size drainage structures.

CIV 212   Environmental Planning   2   3   3

Prerequisites: CIV 211
Corequisites: None
This course covers water and waste water technology, erosion and sedimentation control, and other related topics. Topics include collection, treatment, and distribution of water and waste water and erosion and sedimentation control law. Upon completion, students should be able to demonstrate knowledge of water and waste water systems and prepare erosion and sedimentation control plans.

CIV 215   Highway Technology   1   3   2

Prerequisites: SRV 111
Corequisites: CIV 211
This course introduces the essential elements of roadway components and design. Topics include subgrade and pavement construction, roadway drawings and details, drainage, superelevation, and North Carolina Department of Transportation Standards. Upon completion, students should be able to use roadway drawings and specifications to develop superelevation, drainage, and general highway construction details.

CIV 220   Basic Structural Concepts   1   3   2

Prerequisites: CIV 110 or MEC 250
Corequisites: None
This course covers the historical perspective of structures as well as types, materials, common elements, and mechanical principles of structures. Topics include basic structure shapes, advantages and disadvantages of standard building materials, application of structural concepts, and other related topics. Upon completion, students should be able to demonstrate an understanding of basic structural concepts.

CIV 221   Steel and Timber Design   2   3   3

Prerequisites: CIV 110 or MEC 250
Corequisites: None
This course introduces the basic elements of steel and timber structures. Topics include the analysis and design of steel and timber beams, columns, and connections and the use of appropriate manuals and codes. Upon completion, students should be able to analyze, design, and draw simple steel and timber structures.

CIV 222 Reinforced Concrete   2   3   3

Prerequisites: CIV 111 and CIV 210
Corequisites: None
This course introduces the basic elements of reinforced concrete and masonry structures. Topics include analysis and design of reinforced concrete beams, slabs, columns, footings, and retaining walls; load-bearing masonry walls; and ACI manuals and codes. Upon completion, students should be able to analyze and design components of a structure using reinforced concrete and masonry elements and utilize appropriate ACI publications.

CIV 230   Construction Estimating   2   3   3

Prerequisites: ARC 111, CIS 110, CIS 111, or EGR 115
Corequisites: None

This course covers quantity take-offs of labor, materials, and equipment and calculation of direct and overhead costs for a construction project. Topics include the interpretation of working drawings and specifications, types of contracts and estimates, building codes, bidding techniques and procedures, and estimating software. Upon completion, students should be able to prepare a detailed cost estimate and bid documents for a construction project.

CIV 240   Project Management   2   3   3

Prerequisites: CIV 230
Corequisites: None

This course introduces construction planning and scheduling techniques and project management software. Topics include construction safety, operation analysis, construction scheduling, construction control systems, claims and dispute resolutions, project records, and documentation. Upon completion, students should be able to demonstrate an understanding of the roles of construction project participants, maintain construction records, and prepare construction schedules.

CIV 250   Civil Engineering Tech Project   1   3   2

Prerequisites: Successful completion of three semesters of
the Civil Engineering Technology program
Corequisites: None

This course includes an integrated team approach to civil engineering technology projects. Emphasis is placed on project proposal, site selection, analysis/design of structures, construction material selection, time and cost estimating, planning, and management of a project. Upon completion, students should be able to apply team concepts, prepare estimates, submit bid proposals, and manage projects.

COM - Communication (Speech)

	Lecture	Lab	Credit

COM 110 Introduction to Communication   3   0   3

Prerequisites:
Corequisites: None

This course provides an overview of the basic concepts of communication and the skills necessary to communicate in various contexts. Emphasis is placed on communication theories and techniques used in interpersonal, group, public, intercultural, and mass communication situations. Upon completion, students should be able to explain and illustrate the forms and purposes of human communication in a variety of contexts. Students may be required to prepare and deliver oral reports in public contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in speech/communication.*

COM 111 Voice and Diction I   3   0   3

Prerequisites:
Corequisites: None

This course provides guided practice in the proper production of speech. Emphasis is placed on improving speech, including breathing, articulation, pronunciation, and other vocal variables. Upon completion, students should be able to demonstrate effective natural speech in various contexts. Students will analyze regional and international speech differences and standards.

COM 112 Voice and Diction II   3   2   4

Prerequisites: COM 111
Corequisites: None

This course provides continued practice with articulation, pronunciation, expressiveness, and vocal quality while building skills for adapting the voice to different situations and performance materials. Topics include individual articulation, fluency, quality, and performance problems; specific broadcast/public speaking materials and styles; and Standard English grammar and pronunciation for career success. Upon completion, students should be able to adapt voice and pronunciation style to various situations and use Standard English dialect, grammar, and pronunciation.

COM 120 Interpersonal Communication   3   0   3

Prerequisites:
Corequisites: None

This course introduces the practices and principles of interpersonal communication in both dyadic and group settings. Emphasis is placed on the communication process, perception, listening, self-disclosure, speech apprehension, ethics, nonverbal communication, conflict, power, and dysfunctional communication relationships. Upon completion, students should be able to demonstrate interpersonal communication skills, apply basic principles of group discussion, and manage conflict in interpersonal communication situations. *This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in speech/communication.*

COM 140 Intercultural Communication   3   0   3

Prerequisites:
Corequisites: None

This course introduces techniques of cultural research, definitions, functions, characteristics, and impacts of cultural differences in public address. Emphasis is placed on how diverse backgrounds influence the communication act and how cultural perceptions and experiences determine how people send and receive messages. Upon completion, students should be able to demonstrate an understanding of the principles and skills needed to become effective in communicating outside their primary culture.

COM 231 Public Speaking   3   0   3

Prerequisites:
Corequisites: None

This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support. Special emphasis may be placed on business, health and education contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in speech/communication.*

COM 232 Election Rhetoric   3   0   3

Prerequisites:
Corequisites: None

This course provides an overview of communication styles and topics characteristic of election campaigns. Topics include election speeches, techniques used in election campaigns, and election speech topics. Upon completion, students should be able to identify and analyze techniques and styles typically used in election campaigns.

COM 233 Persuasive Speaking   3   0   3

Prerequisites: ENG 112 or ENG 113 or permission of Program Chair

Corequisites: None

This course introduces theory and history of persuasive speaking, covering critical thinking skills in analyzing problems, assessing solutions, and communicating the information to an audience. Emphasis is placed on analysis, evidence, reasoning, and library and field research used to enhance persuasive public speaking skills. Upon completion, students should be able to apply the principles of persuasive speaking in a public setting. Students will demonstrate an understanding of the complexities of social persuasion inherent in mass media, ethics, propaganda, political and public information campaigns.

COM 251 Debate I   3   0   3

Prerequisites:

Corequisites: None

This course introduces the principles of debate. Emphasis is placed on argument, refutation, research, and logic. Upon completion, students should be able to use research skills and logic in the presentation of ideas within the context of formal debate.

CET - Computer Engineering Technology

See also ELN Electronics and ELC Electricity for other courses.

	Lecture	Lab	Credit

CET 111 Computer Upgrade/Repair I   2   3   3

Prerequisites:

Corequisites: None

This course is the first of two courses covering repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include safety practices, CPU/memory/bus identification, disk subsystem, hardware/software installation/configuration, common device drivers, data recovery, system maintenance, and other related topics. Upon completion, students should be able to safely repair and/or upgrade computer systems to perform within specifications.

CIS / CSC / NET - Computer Information Systems

	Lecture	Lab	Credit

CIS 103   Data Entry Operations   3   2   4

Prerequisites: CIS 111 and OST 131

Corequisites: None

This course covers computer center organization and operation, duties of data entry operators, data entry techniques and equipment, and data entry terminology. Emphasis is placed on speed and accuracy requirements for data entry operations using microcomputers. Upon completion, students should be able to accurately and quickly enter data, use correct terminology and equipment, and carry out all appropriate duties.

CIS 110   Introduction to Computers   2   2   3

Prerequisites:

Corequisites: None

This course provides an introduction to computers and computing. Topics include the impact of computers on society, ethical issues, and hardware/software applications, including spreadsheets, databases, word processors, graphics, the Internet,

and operating systems. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems. This course uses Microsoft Office Professional applications (Word, Excel, Access and PowerPoint) and requires hands-on lab sessions with a PC system. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

CIS 111   Basic PC Literacy   1   2   2

Prerequisites:

Corequisites: None

This course provides a brief overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and workplace use. Upon completion, students should be able to demonstrate basic personal computer skills. This course uses Microsoft Office Professional applications (Word, Excel, and PowerPoint) and requires hands-on lab sessions with a PC system.

CIS 112   Windows   1   2   2

Prerequisites:

Corequisites: None

This course includes the fundamentals of the Windows' software. Topics include graphical user interface, icons, directories, file management, accessories, and other applications. Upon completion, students should be able to use Windows' software in an office environment.

CIS 115   Introduction to Programming and Logic   2   2   3

Prerequisites: MAT 070

Corequisites: None

This course introduces computer programming and problem solving in a programming environment, including an introduction to operating systems, text editor, and a language translator. Topics include language syntax, data types, program organization, problem-solving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language. A programming language such as QBASIC will be used to illustrate concepts and programming logic. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

CIS 116   Introduction to PC Application Development   2   3   3

Prerequisites: CIS 110 or (CIS 111 and CIS 154)

Corequisites: None

This course provides an introductory study of the principles of application development and end-user interface design principles. Emphasis is placed on tables, file management, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design and program a PC application at the introductory level. This course uses Microsoft Office Professional applications (WORD, EXCEL, ACCESS, & PowerPoint) making use of MACROS to program functions and requires hands-on lab sessions with a PC system.

CIS 120   Spreadsheet I   2   2   3

Prerequisites: CIS 110 or CIS 111

Corequisites: None

This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions,

enhancing spreadsheets, creating charts, and printing. Upon completion, students should be able to design and print basic spreadsheets and charts. This course assumes some familiarity with a PC and spreadsheets, and will utilize EXCEL software.

CIS 121   User Support and Software Evaluation   1   4   3

Prerequisites: CIS 110 or CIS 111
Corequisites: None

This course provides an opportunity to evaluate software and hardware and make recommendations to meet end-user needs. Emphasis is placed on software and hardware evaluation, installation, training, and support. Upon completion, students should be able to present proposals and make hardware and software recommendations based on their evaluations.

CIS 130   Survey of Operating Systems   2   3   3

Prerequisites:
Corequisites: None

The course covers operating system concepts which are necessary for maintaining and using computer systems. Topics include disk, file, and directory structures; installation and setup; resource allocation, optimization, and configuration; system security; and other related topics. Upon completion, students should be able to install and configure operating systems and optimize performance. Selected operating systems will be studied.

CIS 144   Operating System - DOS   2   2   3

Prerequisites:
Corequisites: CIS 130

This course introduces operating systems concepts for DOS operating systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating system functions at the support level in a DOS environment.

CIS 147   Operating System - Windows   2   2   3

Prerequisites:
Corequisites: CIS 130

This course introduces operating systems concepts for a Windows operating system. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating system functions at the support level in a Windows environment.

CIS 148   Operating System - Windows NT   2   2   3

Prerequisites:
Corequisites: CIS 130

This course introduces operating systems concepts for the Windows NT operating system. Topics include hardware management, file and memory management, system configuration/optimization, networking options, and utilities. Upon completion, students should be able to perform operating system functions at the single/multi-user support level in a Windows NT environment.

CIS 149   Operating System - MVS   2   2   3

Prerequisites:
Corequisites: CIS 130

This course introduces operating systems concepts for MVS operating systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities, Job Control Language, and support functions. Upon completion, students should be able to perform operating system

functions at the support level in an MVS environment.

CIS 152   Database Concepts and Applications   2   2   3

Prerequisites: CIS 110 or CIS 111, or CIS 115
Corequisites: None

This course introduces database design and creation using a DBMS product. Topics include database terminology, usage in industry, design theory, types of DBMS models, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to create simple database tables, queries, reports, and forms which follow acceptable design practices. A representative database software will be used capable of SQL.

CIS 153   Database Applications   2   2   3

Prerequisites: CIS 152
Corequisites: None

This course covers advanced database functions continued from CIS 152. Topics include manipulating multiple tables, advanced queries, screens and reports, linking, and command files. Upon completion, students should be able to create multiple table systems that demonstrate updates, screen, and reports representative of industry requirements.

CIS 154   Database Utilization   1   2   2

Prerequisites: CIS 110 or CIS 111
Corequisites: None

This course introduces basic database functions and uses. Emphasis is placed on database manipulation with queries, reports, forms, and some table creation. Upon completion, students should be able to enter and manipulate data from the end-user mode. Hands-on experience in using a data base software (such as ACCESS) on a PC is utilized for demonstrating concepts and performing lab assignments.

CIS 157   Database Programming I   2   2   3

Prerequisites: CIS 130 and CIS 152
Corequisites: None

This course is designed to develop programming proficiency in a selected DBMS. Emphasis is placed on the Data Definition Language (DDL) and Data Manipulation Language (DML) of the DBMS as well as on report generation. Upon completion, students should be able to write programs which create, update, and produce reports representative of industry requirements.

CIS 163   Prog Interfaces Internet   2   2   3

Prerequisites: CIS 110 or CIS 111
Corequisites: None

This course creates interactive multimedia applications and applets for the Internet using web-specific languages. Emphasis is placed on audio, video, graphic, and network resources and various file formats. Upon completion, students should be able to create an interactive multimedia application or applet for the Internet.

CIS 169   Business Presentations   1   2   2

Prerequisites: CIS 110 or CIS 111
Corequisites: None

This course provides hands-on experience with a graphics presentation package. Topics include terminology, effective chart usage, design and layout, integrating hardware components, and enhancing presentations with text and graphics. Upon completion, students should be able to design and demonstrate an effective presentation.

CIS 172   Introduction to the Internet   2   3   3

Prerequisites:
Corequisites: None
This course introduces the various navigational tools and services of the Internet. Topics include using Internet protocols, search engines, file compression/decompression, FTP, e-mail, list servers, and other related topics. Upon completion, students should be able to use Internet resources, retrieve/decompress files, and use e-mail, FTP, and other Internet tools. Also, topics include Java, the World Wide Web, news groups, and homepages.

CIS 173   Network Theory   2   2   3

Prerequisites: NET 110
Corequisites: None
This course examines Token Ring, Ethernet, and Arcnet networks. Topics include LAN topologies and design; cable characteristics; cable, interface cards, server, and client installation; basic management techniques; linking networks; and troubleshooting LAN problems. Upon completion, students should be able to install both hardware and software for a small client/server LAN and troubleshoot common network problems.

CIS 174   Network System Manager I   2   2   3

Prerequisites:
Corequisites: None

This course covers effective network management. Topics include network file system design and security, login scripts and user menus, printing services, e-mail, and backup. Upon completion, students should be able to administer an office network system.

CIS 175   Network Management I   2   2   3

Prerequisites:
Corequisites: None
This course covers fundamental network administration and system management. Topics include accessing and configuring basic network services, managing directory services, and using network management software. Upon completion, students should be able to apply system administrator skills in developing a network management strategy.

CIS 182   Printing on the Network   2   2   3

Prerequisites:CIS 174 and CIS 175
Corequisites: None
This course focuses on effective management of printing on a network. Topics include installation, configuration, and management of print servers and print queues, remote printer setup, and customizing print jobs. Upon completion, students should be able to implement and troubleshoot network printing.

CIS 184   TCP/IP and NFS   2   2   3

Prerequisites:CIS 175 and CIS 174 and NET 110
Corequisites: None
This course focuses on installation and configuration of TCP/IP on a network. Topics include an overview of TCP/IP, SNMP, application of programming interfaces, Network File System (NFS), IP addresses, and routing and tunneling. Upon completion, students should be able to install, monitor, manager, diagnose, and troubleshoot common problems in IP networks and internetworks.

**CIS 193   Selected Topics in
Information Systems   1-3   0-6   3**

Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or disci-

pline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

CIS 196   Seminar in Information Systems   0-1   0-3   1

Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

**CIS 211   AS/400 Maintenance and
Operations   2   3   3**

Prerequisites:
Corequisites: None
This course is designed to cover the fundamental AS/400 System operations, screens, utilities, and terminology. Topics include: an introduction to the AS/400 operating system, security, backup and restore, handling spooled files, using command and menus to create and manipulate objects. Upon completion, students should be able to: use utilities, create libraries, save and restore files, monitor and control jobs and queues, and know AS/400 operations.

**CIS 215   Hardware Installation and
Maintenance   2   3   3**

Prerequisites: CIS 110, CIS 111, or CIS 115
Corequisites: None
This course covers the basic hardware of a personal computer, including operations and interactions with software. Topics include component identification, the memory system, peripheral installation and configuration, preventive maintenance, and diagnostics and repair. Upon completion, students should be able to select appropriate computer equipment, upgrade and maintain existing equipment, and troubleshoot and repair non-functioning personal computers.

**CIS 216   Software Installation/
Maintenance   1   2   2**

Prerequisites: CIS 130
Corequisites: None
This course introduces the installation and troubleshooting aspects of personal computer software. Emphasis is placed on initial installation and optimization of system software, conmercial programs, system configuration files, and device drivers. Upon completion, students should be able to install, upgrade, uninstall, optimize, and troubleshoot personal computer software. *Selected software will be used in lab exercises.*

**CIS 218   Introduction to Artificial
Intelligence   3   0   3**

Prerequisites: CIS 130
Corequisites: None
This course introduces artificial intelligence. Emphasis is placed on expert systems. Upon completion, students should be able to discuss the basic concepts and procedures in the development of artificial intelligence systems.

**CIS 219   Advanced PC Application
Development   2   3   3**

Prerequisites: CIS 115 and CIS 116
Corequisites: None
This course provides an advanced study of the principles of application development and end-user interface design principles. Emphasis is placed on advanced arrays/tables, file management, data structures, sub-programs, interactive processing,

sort/merge routines, and libraries. Upon completion, students should be able to design and program a PC application at the advanced level. Students will participate in the joint development of a project that illustrates all phases of project development, including documentation.

CIS 228   Project Manager   1   2   2

Prerequisites: CIS 130
Corequisites: None

This course introduces computerized project management software. Topics include identifying critical paths, cost management, time management, and problem solving. Upon completion, students should be able to plan a complete project and project time and costs accurately.

CIS 244   Operating System - AS/400   2   3   3

Prerequisites:
Corequisites: None

This course includes operating systems concepts for AS/400 systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities, Job Control Language, and support functions. Upon completion, students should be able to perform operating system functions in an AS/400 environment. The students will develop CL programs on CPCC's AS/400 using SEU and PDM, CALL interactive jobs, submit batch jobs, handle messages, monitor for errors, create and use Database Physical and Logical files, and work with spool files.

CIS 245   Operating System - Multi-User   2   3   3

Prerequisites:
Corequisites: None

This course includes operating systems concepts for multi-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating system functions in a multi-user environment.

CIS 247   Operating System - DOS/VSE   2   3   3

Prerequisites:
Corequisites: None

This course includes operating systems concepts for DOS/VSE operating systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities, Job Control Language, and support functions. Upon completion, students should be able to perform operating system functions in a DOS/VSE environment.

CIS 274   Network System Manager II   2   2   3

Prerequisites: CIS 174
Corequisites: None

This course is a continuation of CIS 174 focusing on advanced network management, configuration, and installation. Emphasis is placed on server configuration files, startup procedures, server protocol support, memory and performance concepts, and management and maintenance. Upon completion, students should be able to install and upgrade networks and servers for optimal performance.

CIS 275   Network Management II   2   2   3

Prerequisites: CIS 175
Corequisites:

This course is a continuation of CIS 175 focusing on advanced enterprise networks. Topics include directory service tree planning, management distribution and protection, improving network security, auditing the network, printing, networking, and system administration of an Internet node. Upon

completion, students should be able to manage client services and network features and optimize network performance.

CIS 277   Network Design & Imp   2   2   3

Prerequisites: CIS 275
Corequisites: None

This course focuses on the design, analysis, and integration of a network operating system. Topics include determination of a directory tree structure and object placement, creation of time synchonization strategy, security, and routing services. Upon completion, students should be able to implement a network design strategy, develop a migration strategy, and create a network implementation schedule.

CIS 286   Systems Analysis and Design   3   0   3

Prerequisites: CIS 115
Corequisites: None

This course examines established and evolving methodologies for the analysis, design, and development of a business information system. Emphasis is placed on business systems characteristics, managing information systems projects, prototyping, CASE tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques. Other introductory programming language courses can be used as a prerequisite in lieu of CIS 115.

CIS 287   Network Support   2   2   3

Prerequisites: CIS 274 or CIS 275
Corequisites: None

This course provides experience using CD ROM and on-line research tools and hands-on experience for advanced hardware support and troubleshooting. Emphasis is placed on troubleshooting network adapter cards and cabling, network storage devices, the DOS workstation, and network printing. Upon completion, students should be able to analyze, diagnose, research, and fix network hardware problems.

CIS 288   Systems Project   1   4   3

Prerequisites: CSC 244 and CIS 286
Corequisites: None

This course provides an opportunity to complete a significant systems project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation, and training. Upon completion, students should be able to complete a project from the definition phase through implementation. Students will implement a team project using VSAM files, the current COBOL language compiler, and the CICS teleprocessing monitor software.

CIS 289   Operations Project   2   2   3

Prerequisites: CIS 247 and CSC 135
Corequisites: None

This course provides an opportunity to complete a significant operations project from the design phase through implementation of a business computer application. Emphasis is placed on the use of VSE/Power^a commands, JCL for tape and VSAM files, and responding to system console messages using vendor manuals. Upon completion, students should be able to complete a multiple-job sequenced project including JCL, commands, data, and operator responses.

CSC 120   Computing Fundamentals I   3   2   4

Prerequisites: MAT 080 or MAT 090
Corequisites: None
This course provides the essential foundation for the discipline of computing and a program of study in computer science, including the role of the professional. Topics include algorithm design, data abstraction, searching and sorting algorithms, and procedural programming techniques. Upon completion, students should be able to solve problems, develop algorithms, specify data types, perform sorts and searches, and use an operating system. This course has been approved to satisfy the comprehensive articulation agreement pre-major and/or elective course requirement.

CSC 130   Computing Fundamentals II   3   2   4

Prerequisites: CSC 120
Corequisites: None
This course provides in-depth coverage of the discipline of computing and the role of the professional. Topics include software design methodologies, analysis of algorithm and data structures, searching and sorting algorithms, and file organization methods. Upon completion, students should be able to use software design methodologies and choice of data structures and understand social/ethical responsibilities of the computing professional. This course has been approved to satisfy the comprehensive articulation agreement pre-major and/or elective course requirement.

CSC 131   Assembly Programming   2   3   3

Prerequisites:
Corequisites: None
This course introduces assembly language programming with emphasis on program efficiency. Topics include registers, instruction, data types, memory layout, I/O, bit manipulation, debugging, and code considerations. Upon completion, students should be able to create and modify program modules written in an assembly language.

CSC 133   C Programming   2   3   3

Prerequisites:
Corequisites: None
This course introduces computer programming using the C programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays tables, pointers, and other related topics. Upon completion, students should be able to design, code, test, and debug C language programs.

CSC 134   C++ Programming   2   3   3

Prerequisites:
Corequisites: None
This course introduces object-oriented computer programming using the C++ programming language. Topics include input/output operations, iteration, arithmetic operations, arrays, pointers, filters, and other related topics. Upon completion, students should be able to design, code, test, and debug C++ language programs. This course has been approved to satisfy the comprehensive articulation agreement pre-major and/or elective course requirement.

CSC 135   COBOL Programming   2   3   3

Prerequisites:
Corequisites: None
This course introduces computer programming using the COBOL programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays/tables, and other related topics. Upon completion, students should be able to design, code, test, and debug COBOL language programs.

CSC 136   FORTRAN Programming   2   3   3

Prerequisites:
Corequisites: None
This course introduces computer programming using the FORTRAN programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, subprograms, and other related topics. Upon completion, students should be able to design, code, test, and debug FORTRAN language programs.

CSC 137   Pascal Programming   2   3   3

Prerequisites:
Corequisites: None
This course introduces structured computer programming using the Pascal programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, and other related topics. Upon completion, students should be able to design, code, test, and debug Pascal language programs.

CSC 138   RPG Programming   2   3   3

Prerequisites:
Corequisites: None
This course introduces computer programming using the RPG programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays/tables, and other related topics. Upon completion, students should be able to design, code, test, and debug RPG language programs. Emphasis will be placed on writing structured programs which generate reports, including control levels, using an AS/400 midrange computer.

CSC 139   Visual BASIC Programming   2   3   3

Prerequisites:
Corequisites: None
This course introduces event-driven computer programming using the Visual BASIC programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, forms, sequential files, and other related topics. Upon completion, students should be able to design, code, test, and debug Visual BASIC language programs.

CSC 143   Object-Oriented Programming   2   3   3

Prerequisites:
Corequisites: None
This course introduces the concepts of object-oriented programming. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, test, debug, and implement objects at the application level using the appropriate environment.

CSC 144   AS/400 CL Programming   2   3   3

Prerequisites: CIS 211 and CIS 115
Corequisites: None
This course introduces computer programming using the CL programming language. Topics include CL command structure, command parameters, creating CL programs, manipulating variables, writing commands to control jobs and workflow, and other related topics. Upon completion, students should be able to design, code, test, and debug CL programs.

CSC 148   JAVA Programming   2   3   3

Prerequisites:
Corequisites: None

This course introduces computer programming using the JAVA language. Topics include selection, iteration, arithmetic and logical operators, classes, inheritance, methods, arrays, user interfaces, basic applet creations and other related topics. Upon completion, students should be able to design, code, test, and debug JAVA language programs.

**CSC 193   Selected Topics in
                    Information Systems**   0-3   0-6   3

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

CSC 196   Seminar in Information Systems   0-1   0-3   1

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

**CSC 220   Machine Implementation of
                    Algorithm**   3   2   4

Prerequisites: CSC 120
Corequisites: MAT 271

This course covers the organization and operation of real computer systems at the assembly language level. Topics include mapping of statements and constructs onto machine instruction sequences, internal data types and structures representation, numerical computation, and iterative approximation methods. Upon completion, students should be able to analyze computer system organization, implement procedural language elements, and describe the programming language translation process.

CSC 234   Advanced C++   2   3   3

Prerequisites: CSC 134
Corequisites: None

This course is a continuation of CSC 134 using C++ with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions. Also, this course introduces event-driven computer programming using a Visual C++ programming language.

CSC 235   Advanced COBOL   2   3   3

Prerequisites: CSC 135
Corequisites: None

This course is a continuation of CSC 135 using COBOL with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

CSC 236   Advanced FORTRAN   2   3   3

Prerequisites: CSC 136
Corequisites: None

This course is a continuation of CSC 136 using FORTRAN with structured programming principles. Emphasis is placed on advanced arrays, file management/processing techniques, data structures, sub-programs, interactive processing, algorithms, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

CSC 237   Advanced Pascal   2   3   3

Prerequisites: CSC 137
Corequisites: None

This course is a continuation of CSC 137 using Pascal with structured programming principles. Emphasis is placed on advanced arrays, file management/processing techniques, data structures, sub-programs, interactive processing, algorithms, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

CSC 238   Advanced RPG   2   3   3

Prerequisites: CSC 138
Corequisites: None

This course is a continuation of CSC 138 using RPG with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions. Emphasis will be placed on screen design fundamentals, defining screens using DDS and SDA, and incorporating subfiles in programs using an AS/400 midrange computer.

CSC 239   Advanced Visual BASIC   2   3   3

Prerequisites: CSC 139
Corequisites: None

This course is a continuation of CSC 139 using Visual BASIC with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

CSC 244   CICS   4   2   5

Prerequisites: CSC 235
Corequisites: None

This course provides an in-depth study of interactive transaction processing using command level CICS. Topics include pseudoconversational programming, basic mapping support, control tables, storage areas, file maintenance, screen design, and EDF debugging. Upon completion, students should be able to design, code, test, debug, and document command level COBOL programs for menuing, record processing, browsing, and temporary storage. Additional topics include multiple screen control (paging), multiple map control, user-defined symbolic maps, extended attributes, and VSAM variable-length records.

**NET 110   Data Communication/
                    Networking**   2   2   3

Prerequisites:
Corequisites: None

This course introduces data communication and networking. Topics include telecommunication standards, protocols, equipment, network topologies, communication software, LANs,

WANs, the Internet, and network operating systems. Upon completion, students should be able to demonstrate understanding of the fundamentals of telecommunication and networking.

NET 260   Internet Dev & Support   3   0   3
Prerequisites: NET 110
Corequisites: None
This course covers issues relating to the development and implementation of Internet related tools and services. Topics include Internet organization, site registration, e-mail servers, Web servers, Web page development, legal issues, firewalls, multimedia, TCP/IP, service providers, FTP, list servers, and gateways. Upon completion, students should be able to develop and support the Internet services needed within an organization. Hands-on experience in the setup and management of internet server hardware and software is included.

Computer Operations

(See CIS/CSC/NET Computer Information Systems)

Computer Programming

(See CIS/CSC/NET Computer Information Systems)

Computer Science

(See CIS/SCS/NET Computer Information Systems)

Cooperative Education

	Lecture	Lab	Clinic	Credit

COE 110   World of Work   1   0   0   1
Prerequisites:
Corequisites:
This course covers basic knowledge necessary for gaining and maintaining employment. Topics include job search skills, work ethic, meeting employer expectations, workplace safety, and human relations. Upon completion, students should be able to successfully make the transition from school to work.

COE 111   Co-op Work
Experience I   0   0   10   1
Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 112   Co-op Work
Experience I   0   0   20   2
Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 113   Co-op Work
Experience I   0   0   30   3
Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 114   Co-op Work
Experience I   0   0   40   4
Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 115   Work Experience
Seminar I   1   0   0   1
Prerequisites:
Corequisites: COE 111, COE 112, COE 113, or COE 114
Course description related to individual program.

COE 121   Co-op Work
Experience II   0   0   10   1
Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 122 Co-op Work
Experience II   0   0   20   2
Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 123   Co-op Work
Experience II   0   0   30   3
Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 124   **Co-op Work Experience II**   0   0   40   4

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 125   **Work Experience Seminar II**   1   0   0   1

Prerequisites:
Corequisites: COE 121, COE 122, COE 123, or COE 124
Course description related to individual program.

COE 131   **Co-op Work Experience III**   0   0   10   1

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 132   **Co-op Work Experience III**   0   0   20   2

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 133   **Co-op Work Experience III**   0   0   30   3

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 134   **Co-op Work Experience III**   0   0   40   4

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 211   **Co-op Work Experience IV**   0   0   10   1

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 212   **Co-op Work Experience IV**   0   0   20   2

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 213   **Co-op Work Experience IV**   0   0   30   3

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the Student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 214   **Co-op Work Experience IV**   0   0   40   4

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

COE 221   **Co-op Work Experience V**   0   0   10   1

Prerequisites:
Corequisites:
This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 222   **Co-op Work Experience V**   0   0   20   2

Prerequisites:
Corequisites:
This course provides work experience with a college approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work related competencies.

CJC · Criminal Justice

Lecture Lab Credit

CJC 111 Introduction to Criminal Justice 3 0 3
Prerequisites:
Corequisites: None
This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options.

CJC 112 Criminology 3 0 3
Prerequisites:
Corequisites: None
This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.

CJC 113 Juvenile Justice 3 0 3
Prerequisites:
Corequisites: None
This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition.

CJC 114 Investigative Photography 1 2 2
Prerequisites:
Corequisites: None
This course covers the operation of various photographic equipment and its application to criminal justice. Topics include using various cameras, proper exposure of film, developing film/prints, and preparing photographic evidence. Upon completion, students should be able to demonstrate and explain the role of photography and proper film exposure and development techniques.

CJC 120 Interviews/Interrogations 1 2 2
Prerequisites:
Corequisites: None
This course covers basic and special techniques employed in criminal justice interviews and interrogations. Emphasis is placed on the interview/interrogation process, including interpretation of verbal and physical behavior and legal perspectives. Upon completion, students should be able to conduct interviews/interrogations in a legal, efficient, and professional manner and obtain the truth from suspects, witnesses, and victims.

CJC 121 Law Enforcement Operations 3 0 3
Prerequisites:
Corequisites: None
This course introduces fundamental law enforcement operations. Topics include the contemporary evolution of law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices, and issues related to law enforcement operations.

CJC 122 Community Policing 3 0 3
Prerequisites:
Corequisites: None
This course covers the historical, philosophical, and practical dimensions of community policing. Emphasis is placed on the empowerment of police and the community to find solutions to problems by forming partnerships. Upon completion, students should be able to define community policing, describe how community policing strategies solve problems, and compare community policing to traditional policing.

CJC 131 Criminal Law 3 0 3
Prerequisites:
Corequisites: None
This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.

CJC 132 Court Procedure and Evidence 3 0 3
Prerequisites:
Corequisites: None
This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.

CJC 141 Corrections 3 0 3
Prerequisites:
Corequisites: None
This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system.

CJC 212 Ethics and Community Relations 3 0 3
Prerequisites:
Corequisites: None
This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems; social change, values, and norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations.

CJC 213 Substance Abuse 3 0 3
Prerequisites:
Corequisites: None
This course is a study of substance abuse in our society. Topics include the history and classifications of drug abuse and the social, physical, and psychological impact of drug abuse. Upon completion, students should be able to identify various types of drugs, their effects on human behavior and society, and treatment modalities.

CJC 214   Victimology   3   0   3
Prerequisites:
Corequisites: None
This course introduces the study of victims. Emphasis is placed on roles/characteristics of victims, victim interaction with the criminal justice system and society, current victim assistance programs, and other related topics. Upon completion, students should be able to discuss and identify victims, the uniqueness of victims' roles, and current victim assistance programs.

**CJC 215   Organization and
              Administration**   3   0   3
Prerequisites:
Corequisites: None
This course introduces the components and functions of organization and administration as it applies to the agencies of the criminal justice system. Topics include operations/functions of organizations; recruiting, training, and retention of personnel; funding and budgeting; communications; span of control and discretion; and other related topics. Upon completion, students should be able to identify and discuss the basic components and functions of a criminal justice organization and its administrative operations.

CJC 221   Investigative Principles   3   2   4
Prerequisites:
Corequisites: None
This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.

CJC 222   Criminalistics   3   0   3
Prerequisites:
Corequisites: None
This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence.

CJC 223   Organized Crime   3   0   3
Prerequisites:
Corequisites: None
This course introduces the evolution of traditional and non-traditional organized crime and its effect on society and the criminal justice system. Topics include identifying individuals and groups involved in organized crime, areas of criminal activity, legal and political responses to organized crime, and other related topics. Upon completion, students should be able to identify the groups and activities involved in organized crime and the responses of the criminal justice system.

CJC 231   Constitutional Law   3   0   3
Prerequisites:
Corequisites: None
The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary crim-inal justice issues, and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/procedures as interpreted by the courts.

CJC 232   Civil Liability   3   0   3
Prerequisites:
Corequisites: None
This course covers liability issues for the criminal justice professional. Topics include civil rights violations, tort liability, employment issues, and other related topics. Upon completion, students should be able to explain civil trial procedures and discuss contemporary liability issues.

CJC 233   Correctional Law   3   0   3
Prerequisites:
Corequisites: None
This course introduces statutory/case law pertinent to correctional concepts, facilities, and related practices. Topics include examination of major legal issues encompassing incarceration, probation, parole, restitution, pardon, restoration of rights, and other related topics. Upon completion, students should be able to identify/discuss legal issues which directly affect correctional systems and personnel.

CJC 241   Community-Based Corrections 3   0   3
Prerequisites:
Corequisites: None
This course covers programs for convicted offenders that are used both as alternatives to incarceration and in post-incarceration situations. Topics include offenders, diversion, house arrest, restitution, community service, probation and parole, including both public and private participation, and other related topics. Upon completion, students should be able to identify/discuss the various programs from the perspective of the criminal justice professional, the offender, and the community.

CJC 251   Forensic Chemistry I   3   2   4
Prerequisites:
Corequisites: None
This course provides a study of the fundamental concepts of chemistry as it relates to forensic science. Topics include physical and chemical properties of substances, metric measurements, chemical changes, elements, compounds, gases, and atomic structure. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of forensic chemistry.

CUL - Culinary

                                  Lecture   Lab   Credit

CUL 110 Sanitation and Safety   2   0   2
Prerequisites:
Corequisites:
This course introduces the basic principles of sanitation and safety and their relationship to the hospitality industry. Topics include personal hygiene, sanitation and safety regulations, use and care of equipment, the principles of food-borne illness, and other related topics. Upon completion, students should be able to demonstrate an understanding of sanitation and safety procedures in the hospitality industry.

CUL 120 Purchasing   2   0   2

Prerequisites:
Corequisites: None
This course covers purchasing for hotels and restaurants. Emphasis is placed on procurement, yield tests, inventory control, specification, planning, forecasting, market trends, terminology, cost controls, pricing, and food service ethics. Upon completion, students should be able to apply effective purchasing techniques based on the end-use of the product.

CUL 120A Purchasing Lab   0   2   1

Prerequisites:
Corequisites: CUL 120
This course is a laboratory to accompany CUL 120. Emphasis is placed on practical experiences that enhance the materials presented in CUL 120. Upon completion, students should be able to demonstrate practical applications of purchasing within the hospitality industry.

CUL 135 Food and Beverage Service   2   0   2

Prerequisite
Corequisites None
This course covers the practical skills and knowledge for effective food and beverage service in a variety of settings. Topics include reservations, greeting and service of guests, styles of service, handling complaints, and sales and merchandising. Upon completion, students should be able to demonstrate competence in human relations and technical skills required in the service of foods and beverages.

**CUL 135A Food and Beverage
          Service Lab**   0   2   1

Prerequisites:
Corequisites: CUL 135
This course is a laboratory to accompany CUL 135. Emphasis is placed on practical experiences that enhance the materials presented in CUL 135. Upon completion, students should be able to demonstrate practical applications of skills required in the service of foods and beverages.

CUL 140 Basic Culinary Skills   2   6   5

Prerequisites:
Corequisites: CUL 110
This course introduces the fundamental concepts, skills, and techniques involved in basic cookery. Emphasis is placed on recipe conversion, measurements, terminology, knife skills, safe food handling, cooking methods, flavorings, seasonings, stocks/sauces/soups, and other related topics. Upon completion, students should be able to exhibit the basic cooking skills used in the food service industry. Guest service may be a course component.

CUL 160 Baking I   1   4   3

Prerequisites:
Corequisites:
This course covers basic ingredients, weights and measures, baking terminology, and formula calculations. Topics include yeast-raised products, quick breads, pastry dough, various cakes and cookies, and appropriate filling and finishing techniques. Upon completion, students should be able to prepare and evaluate baked products.

CUL 170 Garde Manger I   1   4   3

Prerequisites:
Corequisites:
This course introduces basic cold food preparation techniques and pantry production. Topics include salads, sandwiches, appetizers, dressings, basic garnishes, cheeses, cold sauces, and related food items. Upon completion, students should be able to lay out a basic cold food display and exhibit an understanding of the cold kitchen and its related terminology.

**CUL 180 International and American
          Regional Cuisine**   1   8   5

Prerequisites: CUL 240, CUL 110
Corequisites: CUL 110
This course provides practical experience in the planning, preparation, and service of representative foods from different countries and regions of America. Emphasis is placed on eating habits, indigenous foods and customs, nutritional concerns, and traditional equipment. Upon completion, students should be able to research and execute international and domestic menus. Guest service may be a course component.

CUL 240 Advanced Culinary Skills   1   8   5

Prerequisites: CUL 140
Corequisites: None
This course is a continuation of CUL 140. Emphasis is placed on meat fabrication and butchery; vegetable, starch, and protein cookery; compound sauces; plate presentation; breakfast cookery; and quantity food preparation. Upon completion, students should be able to plan, execute, and successfully serve entrees with complementary side items. Guest service may be a course component.

CUL 260 Baking II   1   4   3

Prerequisites: CUL 160
Corequisites: None
This course is a continuation of CUL 160. Topics include specialty breads, pastillage, marzipan, chocolate, pulled-sugar, confections, classic desserts, pastries, and cake decorating. Upon completion, students should be able to demonstrate pastry preparation and plating, cake decorating, and show-piece production skills.

CUL 270 Garde Manger II   1   4   3

Prerequisites: CUL 170
Corequisites: None
This course is a continuation of CUL 170. Topics include pâtés, terrines, galantines, ice and tallow carving, chaud-froid/aspic work, charcuterie, smoking, canapés, hors d'oeuvres, and related food items. Upon completion, students should be able to design, set up, and evaluate a catering function to include a classical cold buffet with appropriate show pieces.

CUL 280 Pastry and Confections   1   4   3

Prerequisites: CUL 260, CUL 110
Corequisites: CUL 110
This course covers the operations of the pastry shop, emphasizing advanced techniques in the production of continental and classical pastries. Topics include advanced work in French pastries, hot and cold desserts, and decorative display pieces. Upon completion, students should be able to plan, execute, and evaluate dessert platters, individual plated desserts, and show pieces.

CYT - Cytotechnology

		Lecture	Lab	Clinic	Credit

CYT 210 **Introduction to Clinical Cytology** 4 0 0 4

Prerequisites: Enrollment in the Cytotechnology program
Corequisites: CYT 212, CYT 214 and CYT 216
This course provides an overview of the fundamentals of cell biology, basic histology, and pathology of tumors as they relate to clinical cytology. Topics include basic sciences, as well as inflammatory processes, morphology and classification of microorganisms, and basic clinical cytology terminology. Upon completion, students should be able to discuss the basic histologic and pathologic concepts common to the diagnostic cytology of all body systems.

CYT 212 **Introduction to Cytologic Techniques** 4 0 0 4

Prerequisites: Enrollment in the Cytotechnology program
Corequisites: CYT 210, CYT 214 and CYT 216
The course covers care and use of the light microscope and histologic and cytologic specimen preparation techniques and equipment. Topics include laboratory safety, chemical hygiene, universal precautions, and fundamentals of staining and fixation. Upon completion, students should be able to discuss and demonstrate the care and use of the microscope and discuss basic concepts of staining and fixation

CYT 214 **Gynecologic Cytology** 8 12 0 14

Prerequisites: Enrollment in the Cytotechnology program
Corequisites: CYT 210, CYT 212 and CYT 216
This course covers gynecologic cytology, including normal anatomy, physiology, histology, cytology, malignancies, and treatment modalities. Topics include hormonal cytology, microorganisms and their manifestations, precursor lesions, and carcinomas. Upon completion, students should be able to demonstrate competence in cytologic criteria and gynecologic cytology.

CYT 216 **Clinical and Diagnostic Interpretation I** 4 0 0 4

Prerequisites: Enrollment in the Cytotechnology program
Corequisites: CYT 210, CYT 212 and CYT 214
This course covers cytologic criteria for representative cytologic and histologic specimens. Emphasis is placed on the cytology and histology of the female reproductive system. Upon completion, students should be able to demonstrate competence in the application of cytologic criteria for gynecologic cytology.

CYT 220 **Non-Gynecologic Cytology** 8 8 0 12

Prerequisites: CYT 210, CYT 212, CYT 214 and CYT 216
Corequisites: CYT 222, CYT 224 and CYT 226
This course covers non-gynecologic cytology and fine needle aspiration biopsy of all body sites. Topics include the anatomy, histology, pathology, and cytopathology of the respiratory system, alimentary canal, body cavities, urinary tract, and breast and aspiration cytology. Upon completion, students should be able to demonstrate competence in the use of cytologic criteria as applied to non-gynecologic cytology.

CYT 222 **Cytopreparation Techniques** 2 0 0 2

Prerequisites: CYT 210, CYT 212, CYT 214 and CYT 216
Corequisites: CYT 220, CYT 224 and CYT 226
This course covers the fundamental principles of cytopreparation for histologic and cytologic specimens. Emphasis is placed on techniques related to cytopreparation. Upon completion, students should be able to demonstrate competence in the various cytopreparation methods.

CYT 224 **Gynecologic Cytology Clinical Practicum I** 0 0 12 4

Prerequisites: CYT 210, CYT 212, CYT 214 and CYT 216
Corequisites: CYT 220, CYT 222 and CYT 226
This course provides supervised clinical experience in gynecologic cytology procedures. Emphasis is placed on cytologic diagnosis by routine screening methods. Upon completion, students should be able to demonstrate mastery of all diagnostic skills with a minimum competence of 80%.

CYT 226 **Clinical and Diagnostic Interpretation II** 4 0 0 4

Prerequisites: CYT 210, CYT 212, CYT 214 and CYT 216
Corequisites: CYT 220, CYT 222 and CYT 224
This course covers cytologic criteria for representative cytologic and histologic specimens. Emphasis is placed on the cytology and histology of all areas of non-gynecologic cytology and fine needle aspiration biopsy. Upon completion, students should be able to demonstrate competence in the use of cytologic criteria for non-gynecologic cytology and fine needle aspiration biopsy.

CYT 230 **Non-Gynecologic Cytologic Clinical Practicum** 0 0 6 2

Prerequisites: CYT 220, CYT 222, CYT 224 and CYT 226
Corequisites: CYT 232, CYT 234, CYT 236 and CYT 238
This course provides supervised clinical experience in non-gynecologic cytologic procedures. Emphasis is placed on differential diagnosis in non-gynecologic cytology. Upon completion, students should be able to demonstrate mastery of all diagnostic skills with a minimum competence of 80%.

CYT 232 **Clinical Cytotechnology Practicum** 0 0 3 1

Prerequisites: CYT 220, CYT 222, CYT 224 and CYT 226
Corequisites: CYT 230, CYT 234, CYT 236 and CYT 238
This course provides supervised clinical experience in a variety of clinical settings. Emphasis is placed on teamwork in the clinical setting with utilization of cytodiagnostic and cytopreparation skills. Upon completion, students should be able to function effectively as an entry-level cytotechnologist.

CYT 234 **Gynecologic Cytology** 0 0 9 3

Prerequisites: CYT 220, CYT 222, CYT 224 and CYT 226
Corequisites: CYT 230, CYT 232, CYT 236 and CYT 238
This course provides supervised clinical experience in gynecologic cytologic procedures. Emphasis is placed on the development of solid working criteria in routine cytology screening. Upon completion, students should be able to demonstrate mastery of all diagnostic skills with a minimum competence of 80%.

CYT 236 **Cytology Literature Review** 1 0 0 1

Prerequisites: CYT 220, CYT 222, CYT 224 and CYT 226
Corequisites: CYT 230, CYT 232, CYT 234 and CYT 238
This course covers the development of a scientific, cytology-oriented research paper. Emphasis is placed on the development and presentation of a research proposal utilizing scientific methods, literature reviews, and interpretation of data. Upon completion, students should be able to prepare a scientific research paper based on the scientific method.

CYT 238   Cytotechnology Professional
                   Issues   2   0   0   2

Prerequisites: CYT 220, CYT 222, CYT 224 and CYT 226
Corequisites: CYT 230, CYT 232, CYT 234 and CYT 236

This course covers the essentials of laboratory organization and management, the fundamentals of laboratory accreditation, and basic principles and applications of immunocytochemistry. Emphasis is placed on discussions of articles from current cytology journals with applications to the practice of cytopathology.

DAN - Dance

	Lecture	Lab	Credit

DAN 110   Dance Appreciation   3   0   3

Prerequisites:
Corequisites: None

This course for non-dance majors surveys diverse dance forms and the religious and cultural values that shape them. Topics include dances from Europe, Africa, Asia, and America. Upon completion, students should be able to demonstrate an understanding of the diverse forms and values that dance embraces. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

DAN 121   Tap Dance I   0   3   1

Prerequisites:
Corequisites: None

This course provides the fundamentals of elementary tap dance technique. Emphasis is placed on sounds, rhythms, terminology, and body placement. Upon completion, students should be able to demonstrate significant progress in elementary tap skills.

DAN 122   Tap Dance II   0   3   1

Prerequisites: DAN 121
Corequisites: None

This course is the second in a series and provides an expansion of elementary tap dance techniques. Emphasis is placed on weight shifts, turns, and more complex rhythm patterns. Upon completion, students should be able to demonstrate a moderate mastery of elementary/intermediate tap dance skills.

DAN 124   Jazz Dance I   0   3   1

Prerequisites:
Corequisites: None

This course provides the fundamentals of elementary jazz technique. Emphasis is placed on body placement, stretching, jazz movements, and syncopated rhythms. Upon completion, students should be able to demonstrate significant progress in fundamental jazz dance technique and simple center combinations.

DAN 125   Jazz Dance II   0   3   1

Prerequisites: DAN 124
Corequisites: None

This course is the second in a series and provides an expansion of elementary/intermediate jazz dance. Emphasis is placed on "Cool Jazz," theatrical jazz styles, and extended sequences of movement (routines). Upon completion, students should be able to demonstrate moderate mastery of elementary/intermediate-level jazz dance and be able to perform routines.

DAN 127   Dance for Musical Theatre   0   4   2

Prerequisites:
Corequisites: None

This course is designed to teach alignment fundamentals and different styles of jazz, tap, and folk dance used in musical theatre performances. Emphasis is placed on stretching, ballet barre, jazz, tap, and folk dance fundamentals. Upon completion, students should be able to demonstrate proper posture and fundamental techniques of jazz, tap, and folk dance.

DAN 128E   Dance Sources I   1   2   2

Prerequisites:
Corequisites: None

This course is designed to introduce and expand the fundamentals of a specific ethnic/national dance form and its historical and social background. Emphasis is placed on the historical and social background of culture, basic steps, fundamental forms, and themes of specific dances. Upon completion, students should be able to demonstrate in performance the types and styles of dances characteristic of a specific culture/nation. DAN 128E is African dancing I.

DAN 128I   Dance Sources I   1   2   2

Prerequisites:
Corequisites: None

This course is designed to introduce and expand the fundamentals of a specific ethnic/national dance form and its historical and social background. Emphasis is placed on the historical and social background of culture, basic steps, fundamental forms, and themes of specific dances. Upon completion, students should be able to demonstrate in performance the types and styles of dances characteristic of a specific culture/nation. DAN 128I is East Indian dancing I.

DAN 128S   Dance Sources I   1   2   2

Prerequisites:
Corequisites: None

This course is designed to introduce and expand the fundamentals of a specific ethnic/national dance form and its historical and social background. Emphasis is placed on the historical and social background of culture, basic steps, fundamental forms, and themes of specific dances. Upon completion, students should be able to demonstrate in performance the types and styles of dances characteristic of a specific culture/nation. DAN 128S is Spanish dancing I.

DAN 129E   Dance Sources II   1   2   2

Prerequisites: DAN 128E
Corequisites: None

This course covers a specific ethnic/national dance form and its historical and cultural background. Emphasis is placed on basic steps, forms, and themes of specific dances and their social contexts. Upon completion, students should be able to demonstrate by performance the types and styles of dance of a specific culture/nation. DAN 129E is African dancing II.

DAN 129I   Dance Sources II   1   2   2

Prerequisites: DAN 128I
Corequisites: None

This course covers a specific ethnic/national dance form and its historical and cultural background. Emphasis is placed on basic steps, forms, and themes of specific dances and their social contexts. Upon completion, students should be able to demonstrate by performance the types and styles of dance of a specific culture/nation. DAN 129I is East Indian dancing II.

DAN 129S Dance Sources II   1   2   2

Prerequisites: DAN 128S
Corequisites: None
This course covers a specific ethnic/national dance form and its historical and cultural background. Emphasis is placed on basic steps, forms, and themes of specific dances and their social contexts. Upon completion, students should be able to demonstrate by performance the types and styles of dance of a specific culture/nation. DAN 129S is Spanish dancing II.

DAN 130   Ballet I   0   4   2

Prerequisites:
Corequisites: None
This course introduces the elementary elements of ballet technique. Emphasis is placed on simple positions, body placement, classroom discipline, and the Dalcroze method of counting music. Upon completion, students should be able to recognize the names and rhythms of basic steps and be able to perform those movements at barre and in center.

DAN 131 Ballet II   0   4   2

Prerequisites: DAN 130
Corequisites: None
This course is the second in a series of elementary ballet techniques. Emphasis is placed on motor skill development, elementary allegro steps, and body positions. Upon completion, students should be able to exhibit moderate technical skill in elementary ballet.

DAN 132 Intermediate Ballet I   0   4   2

Prerequisites: DAN 131
Corequisites: None
This course introduces the intermediate elements of ballet technique. Emphasis is placed on intermediate steps, memory of set patterns, and progress in skills, especially turns and allegros. Upon completion, students should be able to exhibit significant progress in intermediate ballet technique and the ability to memorize extended combinations of steps.

DAN 133   Intermediate Ballet II   0   4   2

Prerequisites: DAN 132
Corequisites: DAN 134
This course is the second in a series of intermediate ballet technique. Emphasis is placed on progress in intermediate skills, memory and execution of steps, especially Grande Allegro. Upon completion, students should be able to exhibit significant achievement in intermediate ballet technique and the ability to quickly learn and retain combinations.

DAN 134   Ballet Pointe Work   0   2   1

Prerequisites:
Corequisites: DAN 132 or DAN 133
This course provides the fundamentals of pointe work. Emphasis is placed on releve, piques (pose), body placement, and foot strengthening. Upon completion, students should be able to execute simple ballet steps on pointe at the barre and in center.

DAN 140   Modern Dance I   0   4   2

Prerequisites:
Corequisites: None
This course introduces the elementary elements of modern dance technique. Emphasis is placed on floor, barre, and center floor exercises. Upon completion, students should be able to exhibit a basic understanding and skill in performing elementary modern dance technique.

DAN 141   Modern Dance II   0   4   2

Prerequisites: DAN 140
Corequisites: None
This course is the second in a series of elementary modern dance technique. Emphasis is placed on motor skill development and simple combinations in center floor. Upon completion, students should be able to exhibit moderate technical skill in elementary modern dance technique.

DAN 142   Intermediate Modern Dance I   0   4   2

Prerequisites: DAN 141
Corequisites: None
This course introduces intermediate modern dance technique. Emphasis is placed on kinesthesis (body energy) and intermediate movements including turns, spirals, and jumps. Upon completion, students should be able to demonstrate significant progress in intermediate technique and extended movement sequences.

DAN 143   Intermediate Modern Dance II   0   4   2

Prerequisites: DAN 142
Corequisites: None
This course is the second in a series of intermediate modern dance technique. Emphasis is placed on progress in intermediate skills, musical phrasing, and introduction to selections of modern dance repertoire. Upon completion, students should be able to demonstrate significant achievement in intermediate technique and to begin to practice selections of its repertoire.

DAN 191   Selected Topics in Dance   0-1   0-3   1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

DAN 192   Selected Topics in Dance   0-2   0-6   2

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

DAN 193   Selected Topics in Dance   1-3   0-6   3

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

DAN 196   Seminar in Dance   0-1   0-3   1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

DAN 197   Seminar in Dance   0-2   0-6   2

Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

DAN 198   Seminar in Dance   1-3   0-6   3

Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

DAN 211   Dance History I   3   0   3

Prerequisites:
Corequisites: None
This course provides an in-depth study of world dance from pre-history to 1800. Emphasis is placed on examining the dance and dancers of diverse cultures including Africa, Asia, and Europe. Upon completion, students should be able to analyze the common need to dance and the forms, religions, and cultural values it embodies. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

DAN 212   Dance History II   3   0   3

Prerequisites:
Corequisites: None
This course provides an in-depth study of world dance from 1800 to the present. Emphasis is placed on Western theatrical dance (ballet, modern dance, tap, and jazz) and the personalities that shaped it. Upon completion, students should be able to analyze culturally diverse dance forms and their cross-pollenation which have produced the "pan world dance of today." *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

**DAN 221   Advanced Modern
            Dance I**   0   4   2

Prerequisites: DAN 143
Corequisites: None
This course introduces the advanced elements of modern dance technique. Emphasis is placed on advanced movements, mastery of technical skills, and spatial divisions. Upon completion, students should be able to demonstrate significant progress in the execution of all movements and to demonstrate a sense of quality in them.

DAN 222   Advanced Modern Dance II   0   4   2

Prerequisites: DAN 221
Corequisites: None
This course is the second in a series of advanced modern dance technique. Emphasis is placed on mastery and quality of technical skills and execution of complicated movement variations in extended sequence. Upon completion, students should be able to demonstrate significant achievement in modern dance skills and the ability to perform modern dance repertoire.

DAN 225   Choreography I   1   4   3

Prerequisites: DAN 140
Corequisites: Enrollment in DAN 142 or
               higher-level dance class
This course introduces the fundamental techniques of modern dance choreography. Emphasis is placed on improvisation and development of movement phrases. Upon completion, students should be able to create simple movements, improvise upon them, and develop longer movement phrases to create short dances.

DAN 226   Choreography II   1   4   3

Prerequisites: DAN 140
Corequisites: Enrollment in DAN 142 or
               higher-level dance class
This course introduces the elements of dance (time, space, form) and structural forms as used to choreograph. Emphasis is placed on the use of design, dynamics, rhythm, motivation, and musical forms to create dances. Upon completion, students should be able to utilize the elements of time, space, and form and form manipulation to choreograph and rehearse a group dance.

DAN 236   Advanced Ballet I   0   4   2

Prerequisites: DAN 133
Corequisites: None
This course introduces the advanced elements of ballet technique. Emphasis is placed on refinement of all technical skills, learning advanced movements, pointe (female) and big jumps (male). Upon completion, students should be able to exhibit significant progress in the execution of all movements and to demonstrate a sense of quality in them.

DAN 237   Advanced Ballet II   0   4   2

Prerequisites:DAN 236
Corequisites: None
This course is the second in a series of advanced ballet technique. Emphasis is placed on mastery and quality of all skills, refinement of movements, pointe (female) and big jumps (male). Upon completion, students should be able to demonstrate significant achievement in all ballet skills and the ability to perform ballet repertoire.

DAN 262B Dance Performance   2   2   3

Prerequisites:
Corequisites: Enrollment in a dance technique class
This course includes audition, casting, rehearsal, and video performance of a new ballet. Emphasis is placed on universal rehearsal techniques, improvement of dance techniques, teamwork, and performance of new choreography. Upon completion, students should be able to demonstrate through video performance a basic knowledge of the creation of a new ballet. DAN 262B is ballet performance.

DAN 262M Dance Performance   2   2   3

Prerequisites:
Corequisites: Enrollment in a dance technique class
This course includes audition, casting, rehearsal, and video performance of a new ballet. Emphasis is placed on universal rehearsal techniques, improvement of dance techniques, teamwork, and performance of new choreography. Upon completion, students should be able to demonstrate through video performance a basic knowledge of the creation of a new ballet. DAN 262M is modern dance performance.

DAN 264B Dance Production   0   9   3

Prerequisites:
Corequisites: Enrollment in a dance technique class
This course covers creation, rehearsal, and performance, before a live audience, of a new or reconstructed work by faculty, guest artist, or repertory. Emphasis is placed on movement, memory skills, role development, accepted professional behavior, and ability to project the choreographer's intent. Upon completion, students should be able to demonstrate through performance a basic knowledge of the artistic and technical aspects of performing before a live audience. DAN 264B is ballet production.

DAN 264M Dance Production   0   9   3

Prerequisites:
Corequisites: Enrollment in a dance technique class
This course covers creation, rehearsal, and performance, before a live audience, of a new or reconstructed work by faculty, guest artist, or repertory. Emphasis is placed on movement, memory skills, role development, accepted professional behavior, and ability to project the choreographer's intent. Upon completion, students should be able to demonstrate through performance a basic knowledge of the artistic and technical aspects of performing before a live audience. DAN 264M is modern dance production.

DEN - Dental Programs (Dental Assisting and Dental Hygiene)

		Lecture	Lab	Clinic	Credit

DEN 100   Basic Orofacial Anatomy   2   0   0   2

Prerequisites: Enrollment in the Dental Assisting Program
Corequisites: DEN 101
This course provides a basic introduction to the structures of the head, neck, and oral cavity. topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to demonstrate knowledge of normal structures and development and how they relate to the practice of dental assisting. This is a diploma-level course.

DEN 101   Preclinical Procedures   4   6   0   7

Prerequisites: Enrollment in the Dental Assisting Program
Corequisites: DEN 111, DEN 100, DEN 102
This course provides instruction in procedures for the clinical dental assistant as specified by the North Carolina Dental Practice Act. Emphasis is placed on orientation to the profession, infection control techniques, instruments, related expanded functions, and diagnostic, operative, and specialty procedures. Upon completion, students should be able to demonstrate proficiency in clinical dental assisting procedures. This is a diploma-level course.

DEN 102   Dental Materials   3   4   0   5

Prerequisites: Enrollment in the Dental Assisting Program
Corequisites: DEN 101
This course provides instruction in identification, properties, evaluation of quality, principles, and procedures related to manipulation and storage of operative and specialty dental materials. Emphasis is placed on the understanding and safe application of materials used in the dental office and laboratory. Upon completion, students should be able to demonstrate proficiency in the laboratory and clinical application of routinely used dental materials. This is a diploma-level course.

DEN 103   Dental Sciences   2   0   0   2

Prerequisites: DEN 100
Corequisites: None
This course is a study of oral pathology, pharmacology, and dental office emergencies. Topics include oral pathological conditions, dental therapeutics, and management of emergency situations. Upon completion, students should be able to recognize abnormal oral conditions, identify classifications, describe actions and effects of commonly prescribed drugs, and respond to medical emergencies. This is a diploma-level course.

DEN 104   Dental Health Education   2   2   0   3

Prerequisites: DEN 101, DEN 111, DEN 100
Corequisites: None
This course covers the study of preventive dentistry to prepare dental assisting students for the role of dental health educator. Topics include etiology of dental diseases, preventive procedures, and patient education theory and practice. Upon completion, students should be able to demonstrate proficiency in patient counseling and oral health instruction in private practice or public health settings. This is a diploma-level course.

DEN 105   Practice Management   2   0   0   2

Prerequisites: DEN 101
Corequisites: None
This course provides a study of principles and procedures related to management of the dental practice. Emphasis is placed on maintaining clinical and financial records, patient scheduling, and supply and inventory control. Upon completion, students should be able to demonstrate fundamental skills in dental practice management. This is a diploma-level course.

DEN 106   Dental Clinical Practice I   1   0   12   5

Prerequisites: All required DEN courses
Corequisites: None
This course is designed to provide experience assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to utilize classroom theory and laboratory and clinical skills in a dental setting. This is a diploma-level course.

DEN 107   Dental Clinical Practice II   1   0   12   5

Prerequisites: DEN 106
Corequisites: None
This course is designed to increase the level of proficiency in assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to combine theoretical and ethical principles necessary to perform entry-level skills including functions delegable to a DA II. This is a diploma-level course.

DEN 110   Orofacial Anatomy   2   2   0   3

Prerequisites: Acceptance into Dental Hygiene Program
Corequisites: None
This course introduces the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to relate the identification of normal structures and development to the practice of dental assisting and dental hygiene.

**DEN 111   Infection and Hazard
            Control   2   0   0   2**

Prerequisites: Acceptance into Dental Hygiene or
            Dental Assisting program
Corequisites: None
This course introduces the infection and hazard control procedures necessary for the safe practice of dentistry. Topics include microbiology, practical infection control, sterilization and monitoring, chemical disinfectants, aseptic technique, infectious diseases, OSHA standards, and applicable North Carolina laws. Upon completion, students should be able to understand infectious diseases, disease transmission, infection control procedures, biohazard management, OSHA standards, and applicable North Carolina laws.

DEN 112   Dental Radiography   2   3   0   3

Prerequisites: Acceptance into Dental Hygiene or Dental
            Assisting program
Corequisites: DEN 100 or DEN 110 and DEN 111
This course provides a comprehensive view of the principles and procedures of radiology as they apply to dentistry. Topics include techniques in exposing, processing, and evaluating radiographs, as well as radiation safety, quality assurance, and legal issues. Upon completion, students should be able to demonstrate proficiency in the production of diagnostically acceptable radiographs using appropriate safety precautions.

**DEN 120   Dental Hygiene
            Preclinical Lecture   2   0   0   2**

Prerequisites: Acceptance into Dental Hygiene program
Corequisites: DEN 121
This course introduces preoperative and clinical dental hygiene concepts. Emphasis is placed on the assessment phase of patient care as well as the theory of basic dental hygiene instrumentation. Upon completion, students should be able to collect and evaluate patient data at a basic level and demonstrate knowledge of dental hygiene instrumentation.

**DEN 121   Dental Hygiene
            Preclinical Lab   0   6   0   2**

Prerequisites: Acceptance into Dental Hygiene program
Corequisites: DEN 120
This course provides the opportunity to perform clinical dental hygiene procedures discussed in DEN 120. Emphasis is placed on clinical skills in patient assessment and instrumentation techniques. Upon completion, students should be able to demonstrate the ability to perform specific preclinical procedures.

**DEN 123   Nutrition/Dental
            Health   2   0   0   2**

Prerequisites:
Corequisites: None
This course introduces basic principles of nutrition with emphasis on nutritional requirements and their application to individual patient needs. Topics include the study of the food pyramid, nutrient functions, Recommended Daily Allowances, and related psychological principles. Upon completion, students should be able to recommend and counsel individuals on their food intake as related to their dental health.

DEN 124   Periodontology   2   0   0   2

Prerequisites: DEN 110
Corequisites: None
This course provides an in-depth study of the periodontium, periodontal pathology, periodontal monitoring, and the principles of periodontal therapy. Topics include periodontal anatomy and a study of the etiology, classification, and treatment modalities of periodontal diseases. Upon completion, students should be able to describe, compare, and contrast techniques involved in periodontal/maintenance therapy, as well as patient care management.

**DEN 130   Dental Hygiene
            Theory I   2   0   0   2**

Prerequisites: DEN 120
Corequisites: DEN 131
This course is a continuation of the didactic dental hygiene concepts necessary for providing an oral prophylaxis. Topics include deposits/removal, instrument sharpening, patient education, fluorides, planning for dental hygiene treatment, charting, and clinical records and procedures. Upon completion, students should be able to demonstrate knowledge needed to complete a thorough oral prophylaxis.

**DEN 131   Dental Hygiene
            Clinic I   0   0   9   3**

Prerequisites: DEN 121
Corequisites: DEN 130
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of the recall patients with gingivitis or light deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.

**DEN 140   Dental Hygiene
            Theory II   1   0   0   1**

Prerequisites: DEN 130
Corequisites: DEN 141
This course provides a continuation of the development, theory, and practice of patient care. Topics include modification of treatment for special needs patients, advanced radiographic interpretation, and ergonomics. Upon completion, students should be able to differentiate necessary treatment modifications, effective ergonomic principles, and radiographic abnormalities.

**DEN 141   Dental Hygiene
            Clinic II   0   0   6   2**

Prerequisites: DEN 131
Corequisites: DEN 140
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of patients with early periodontal disease and subgingival deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.

**DEN 220   Dental Hygiene
            Theory III   2   0   0   2**

Prerequisites: DEN 140
Corequisites: DEN 221
This course provides a continuation in developing the theories and practices of patient care. Topics include periodontal debridement, pain control, subgingival irrigation, air polishing, and case presentations. Upon completion, students should be able to demonstrate knowledge of methods of treatment and management of periodontally compromised patients.

**DEN 221   Dental Hygiene
            Clinic III   0   0   12   4**

Prerequisites: DEN 141
Corequisites: DEN 220
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of patients with

moderate to advanced periodontal involvement and moderate deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.

DEN 222 General and Oral Pathology   2   0   0   2

Prerequisites: BIO 163 or BIO 165 or BIO 168
Corequisites: None
This course provides a general knowledge of oral pathological manifestations associated with selected systemic and oral diseases. Topics include developmental and degenerative diseases, selected microbial diseases, specific and nonspecific immune and inflammatory responses with emphasis on recognizing abnormalities. Upon completion, students should be able to differentiate between normal and abnormal tissues and refer unusual findings to the dentist for diagnosis.

DEN 223 Dental Pharmacology   2   0   0   2

Prerequisites:
Corequisites: BIO 163 or BIO 165 or BIO 168
This course provides basic drug terminology, general principles of drug actions, dosages, routes of administration, adverse reactions, and basic principles of anesthesiology. Emphasis is placed on knowledge of drugs in overall understanding of patient histories and health status. Upon completion, students should be able to recognize that each patient's general health or drug usage may require modification of the treatment procedures.

DEN 224 Materials and Procedures   1   3   0   2

Prerequisites: DEN 111
Corequisites: None
This course introduces the physical properties of materials and related procedures used in dentistry. Topics include restorative and preventive materials, fabrication of casts and appliances, and chairside functions of the dental hygienist. Upon completion, students should be able to demonstrate proficiency in the laboratory and/or clinical application of routinely used dental materials and chairside functions.

DEN 230 Dental Hygiene Theory IV   1   0   0   1

Prerequisites: DEN 220
Corequisites: DEN 231
This course provides an opportunity to increase knowledge of the profession. Emphasis is placed on dental specialties and completion of a case presentation. Upon completion, students should be able to demonstrate knowledge of various disciplines of dentistry and principles of case presentations.

DEN 231 Dental Hygiene Clinic IV   0   0   12   4

Prerequisites: DEN 221
Corequisites: DEN 230
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on periodontal maintenance and on treating patients with moderate to advanced/refractory periodontal disease. Upon completion, students should be able to assess these Patient's' needs and complete the necessary dental hygiene treatment.

DEN 232 Community Dental Health   2   0   3   3

Prerequisites: DEN 123
Corequisites: None
This course provides a study of the principles and methods used in assessing, planning, implementing, and evaluating community dental health programs. Topics include epidemiology, research methodology, biostatistics, preventive dental care, dental health education, program planning, and financing and utilization of dental services. Upon completion, students should be able to assess, plan, implement, and evaluate a community dental health program.

DEN 233 Professional Development   2   0   0   2

Prerequisites:
Corequisites: None
This course includes professional development, ethics, and jurisprudence with applications to practice management. Topics include conflict management, state laws, résumé, interviews, and legal liabilities as health care professionals. Upon completion, students should be able to demonstrate the ability to practice dental hygiene within established ethical standards and state laws.

DDF - Design Drafting

See also ATR-Automation, DFT-Drafting, ISC-Industrial Science, and MEC-Mechanical Engineering for other courses.

	Lecture	Lab	Credit
DDF 221 Design Drafting Project	0	4	2

Prerequisites: DFT 112
Corequisites: None
This course incorporates ideas from concept to final design. Topics include reverse engineering, design for manufacturability, and mock-up construction. Upon completion, students should be able to generate working drawings and models based on physical design parameters.

DES - Interior Design

See also ARC Architectural Technology for other descriptions.

	Lecture	Lab	Credit
DES 115 Color Theory	2	2	3

Prerequisites:
Corequisites: None
This course introduces the element of color as a major design factor. Emphasis is placed on the physical, psychological, and other implications of color in design. Upon completion, students should be able to demonstrate knowledge of color and its effects on the human environment.

DES 125 Graphic Presentation I	0	6	2

Prerequisites:
Corequisites: None
This course introduces graphic presentation techniques for communicating ideas. Topics include drawing, perspective drawing, and wet and dry media. Upon completion, students should be able to produce a pictorial presentation.

DES 126   Graphic Presentation II   0   6   2
Prerequisites: DES 125
Corequisites: None
This course provides a more in-depth study of graphic techniques. Topics include extensive wet and dry media experience and advanced measured perspective techniques. Upon completion, students should be able to illustrate interiors and other elements.

DES 130   Macintosh Application / Interior
**   Design   2   3   3**
Prerequisites:
Corequisites: None
This course introduces Macintosh applications using current appropriate software. Emphasis is placed on basic operation of the Macintosh computer in interior design applications. Upon completion, students should be able to select operations, print documents, and utilize applications to create documents for interior design.

DES 135   Principles and Elements of
**   Design I   2   4   4**
Prerequisites:
Corequisites: None
This course introduces the basic concepts and terminology of design as they relate to the design profession. Topics include line, pattern, space, mass, shape, texture, color, unity, variety, rhythm, emphasis, balance, proportion, scale, and function. Upon completion, students should be able to demonstrate an understanding of the principles covered through hands-on application.

DES 136   Principles and Elements of
**   Design II   2   4   4**
Prerequisites: DES 135
Corequisites: None
This course provides continued study of design principles introduced in DES 135. Emphasis is placed on color theory, pattern, and texture as used in interiors as well as an investigation of the psychology of color. Upon completion, students should be able to originate a color program for interiors.

DES 210   Business Practice / Interior
**   Design   2   0   2**
Prerequisites:
Corequisites: None
This course introduces contemporary business practices for interior design. Topics include employment skills, business formations, professional associations, preparation of professional contracts and correspondence, and means of compensation. Upon completion, students should be able to describe the basic business formations and professional associations and compose effective letters and contracts.

DES 220   Introduction to Interior Design   1   6   3
Prerequisites: DES 125 and DES 135; and ARC 111, or
              DES 110, or DFT 115
Corequisites: None
This course covers the basic principles of design as they relate specifically to interior design, furniture arrangement, wall composition, color, furnishings, collages, and illustration. Emphasis is placed on spatial relationships, craftsmanship, and visual presentation techniques. Upon completion, students should be able to arrange furnishings in rooms for various purposes, select furnishings and colors, and illustrate ideas graphically.

DES 225   Textiles / Fabrics   2   2   3
Prerequisites:
Corequisites: None
This course includes the study of woven and non-woven fabrics for interiors. Topics include characteristics of fibers, yarns, weaving, felting, and knitting; processing of leather; and adorning and finishing of interior fabrics. Upon completion, students should be able to recognize and use correct terminology for upholstery, window treatments, and rugs/carpets with regard to flammability, performance, and durability.

DES 230   Residential Design I   1   6   3
Prerequisites: ARC 111, DES 125, DES 220,
              DES 135, ARC 120
Corequisites: None
This course includes principles of interior design for various residential design solutions. Emphasis is placed on visual presentation and selection of appropriate styles to meet specifications. Upon completion, students should be able to complete scaled floor plans, elevations, specifications, color schemes and fabrics, and finishes and furniture selection.

DES 231   Residential Design II   1   6   3
Prerequisites: DES 230, ARC 111, DES 125, DES 135,
              ARC 120, DES 220, DES 230
Corequisites: None
This course provides advanced projects with a client profile that utilizes the skills developed in DES 230. Emphasis is placed on a total concept and the presentation of appropriate and creative design solutions. Upon completion, students should be able to complete a detailed floor plan, space planning, furniture plan, specifications, program schedules, finishes, and detailed window treatments.

DES 235   Products   2   2   3
Prerequisites:
Corequisites: None
This course provides an overview of interior finishing materials and the selection of quality upholstery and case goods. Topics include hard and resilient floor coverings; wall coverings and finishes; ceilings, moldings, and furniture construction techniques; and other interior components. Upon completion, students should be able to recognize and use correct terminology, select appropriate materials for interior surfaces, and choose furniture based on sound construction.

DES 240   Non-Residential Design I   1   6   3
Prerequisites: DES 220, ARC 111, ARC 120, DES 125,
              DES 135, DES 220
Corequisites: None
This course introduces commercial/contract design including retail, office, institutional, restaurant, and hospitality design. Emphasis is placed on ADA requirements, building codes and standards, space planning, and selection of appropriate materials for non-residential interiors. Upon completion, students should be able to analyze and design introductory non-residential projects using graphic presentation concepts.

DES 241   Non-Residential Design II   1   6   3
Prerequisites: DES 240, ARC 111, ARC 120, DES 125,
              DES 135, DES 220, DES 240
Corequisites: None
This course provides an in-depth study of non-residential design exploring more comprehensive design solutions such as health care facilities, furniture gallery design, and large office complexes. Emphasis is placed on design of commercial interiors and suitability of materials to meet ADA requirements,

codes, and standards. Upon completion, students should be able to design non-residential spaces meeting ADA requirements and select furniture, materials, fabrics, and accessories meeting codes and flammability standards.

DES 245 Sales and Marketing / Interior Design   2   0   2

Prerequisites:
Corequisites: None

This course introduces retail/wholesale sales and marketing concepts, product distribution, and terminology for the interior design profession. Topics include current retail/wholesale marketing techniques, sales terminology, acceptable business practices, and basic retail/wholesale computations. Upon completion, students should be able to demonstrate knowledge of specific design marketing and sales organizations and techniques and compute basic mark-ups and mark-downs.

DES 250 Store Planning   2   3   3

Prerequisites: DES 220, ARC 111, ARC 120, DES 125,
            DES 135, DES 240
Corequisites: None

This course introduces theoretical and practical concepts in store design based on current retail merchandising methods. Topics include retail display, lighting, selection of fixtures, and formulas for successful space planning and allocation. Upon completion, students should be able to plan a store interior given established requirements for retail lighting, fixtures, and visual merchandising.

DES 255 History / Interior and Furnishings I   3   0   3

Prerequisites:
Corequisites: None

This course covers interiors, exteriors, and furnishings from ancient Egypt through French Neo-Classicism. Emphasis is placed on vocabulary, chronology, and style recognition. Upon completion, students should be able to classify and date interior and exterior architecture and furnishings and be conversant with pertinent vocabulary.

DES 257 History of American Homes   3   0   3

Prerequisites:
Corequisites: None

This course provides an overview of American architectural styles from Medieval frame dwellings through the International style. Emphasis is placed on vocabulary, characteristics of architectural styles, and chronology as well as research of a historic home. Upon completion, students should be able to identify and use correct terminology regarding the history of American homes.

DES 258 Historic Preserve / Restoration   3   2   4

Prerequisites: DES 230 and either DES 255 or DES 256
Corequisites: None

This course surveys American architectural styles from the 17th century to the present as an introduction to historic restoration and adaptive reuse. Emphasis is placed on research techniques, period design, furnishings, and construction techniques used in historic preservation and restoration. Upon completion, students should be able to design interiors appropriate for historic periods by drawing from a broad knowledge of historic design.

DES 260 Materials Calculations / Interior Design   3   0   3

Prerequisites:
Corequisites: None

This course includes the study of calculations for square footage, square yardage, and cut-length yardage. Emphasis is placed on the development of workable formulas, worksheets, and order forms that can be used in an interior design business. Upon completion, students should be able to produce electronic worksheets and order forms for calculating window treatments, wall coverings, and floor coverings for a given space.

DES 275 Furniture Design and Construction   2   2   3

Prerequisites:
Corequisites: None

This course introduces contemporary furniture design and construction techniques used in custom and handmade furniture building. Topics include design and manufacturing processes and materials selection for handmade and production, case goods, and upholstery manufacturing. Upon completion, students should be able to design and describe manufacturing processes used in both case goods and upholstered furniture manufacturing.

DES 280 Codes and Standards / Interior Description   3   0   3

Prerequisites:
Corequisites: None

This course introduces institutional and residential building codes as they relate to interior design. Topics include state and federal codes and standards related to physically disadvantaged access, fire codes, space allocation codes, and bathroom facility codes. Upon completion, students should be able to research and interpret state and federal building codes.

DES 285 Capstone / Interior Design   2   6   4

Prerequisites: DES 210, DES 230, and DES 240
Corequisites: None

This course provides additional studio time to investigate areas of special interest, upgrade weaknesses, and/or capitalize on strengths. Topics include a broad range of options, both residential and non-residential, combining individual research and instructional guidance. Upon completion, students should be able to complete the graphics, client folder, and all schedules for a professional project.

DFT - Drafting

Also see ATR Automation, DDF Design Drafting, ISC Industrial Science, and MEC Mechanical Engineering Technology for other courses.

                         Lecture   Lab   Credit

DFT 111 Technical Drafting I   1   3   2

Prerequisites:
Corequisites: None

This course introduces basic drafting skills, equipment, and applications. Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorials drawings, sections, and auxiliary views. Upon completion, students should be able to understand and apply basic drawing principles and practices.

DFT 112   Technical Drafting II   1   3   2

Prerequisites: DFT 111
Corequisites: None
This course provides for advanced drafting practices and procedures. Topics include detailed working drawings, hardware, fits and tolerances, assembly and sub-assembly, geometric dimensioning and tolerancing, intersections, and developments. Upon completion, students should be able to produce detailed working drawings.

**DFT 121   Introduction to Geometric
             Dimensioning and Tolerancing   1   2   2**

Prerequisites:DFT 111
Corequisites: None
This course introduces basic geometric dimensioning and tolerancing principles. Topics include symbols, annotation, theory, and applications. Upon completion, students should be able to interpret and apply basic geometric dimensioning and tolerancing principles to drawings.

DFT 151   CAD I   2   3   3

Prerequisites: DFT 111
Corequisites: None
This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing.

DFT 152   CAD II   2   3   3

Prerequisites: DFT 151
Corequisites: None
This course is a continuation of DFT 151. Topics include advanced two-dimensional, three-dimensional, and solid modeling and extended CAD applications. Upon completion, students should be able to generate and manage CAD drawings and models to produce engineering documents.

DFT 170   Engineering Graphics   2   2   3

Prerequisites:
Corequisites: None
This course introduces basic engineering graphics skills, equipment and applications (manual and computer-aided). Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorial drawings, and sectional and auxiliary views. Upon completion, students should be able to demonstrate an understanding of basic engineering graphics principles and practices. *This course is intended for A.S. Engineering transfer students.*

DDT - Developmental Disabilities

		Lecture	Lab	Clinic	Credit

**DDT 110   Developmental
             Disabilities   3   0   0   3**

Prerequisites:
Corequisites: None
This course identifies the characteristics and causes of various disabilities. Topics include history of service provision, human rights, legislation and litigation, advocacy, and accessing support services. Upon completion, students should be able to demonstrate an understanding of current and historical developmental disability definitions and support systems used throughout the life span.

**DDT 120   Teaching Developmentally
             Disabled   3   0   0   3**

Prerequisites: DDT 110
Corequisites: None
This course covers teaching modalities which enhance learning among people with developmental disabilities. Topics include assessment, support strategies, writing behavioral strategies, teaching methods, and documentation. Upon completion, students should be able to demonstrate competence in individual program plan development and implementation. This course is a unique concentration requirement of the Developmental Disabilities concentration in the Human Services Technology program.

**DDT 210   Developmental Disabilities /
             Health Issues   3   0   0   3**

Prerequisites: DDT 110
Corequisites: None
This course introduces the health and medical aspects of assisting people with developmental disabilities. Topics include universal precautions, medication, wellness, nutrition, human sexuality, and accessing medical services. Upon completion, students should be able to identify and implement strategies to promote wellness and manage chronic health conditions. Upon completion, students should be able to identify and implement strategies for the maintenance, prevention, and treatment of predominant health conditions affecting the developmentally disabled. This course is a unique concentration requirement of the Developmental Disabilities concentration in the Human Services Technology program.

**DDT 220   Program Planning
             Process   3   0   0   3**

Prerequisites:
Corequisites: None
This course covers the individual program planning process used in services for people with developmental disabilities. Topics include basic components and benefits of the process, the effect of values on outcomes, and group problem-solving methods. Upon completion, students should be able to demonstrate an understanding of effective group process in program planning and the individual roles of team members. This course is a unique concentration requirement of the Developmental Disabilities concentration in the Human Services Technology program.

DRA - Drama/Theatre

		Lecture	Lab	Credit

DRA 111   Theatre Appreciation   3   0   3

Prerequisites:
Corequisites: None
This course provides a study of the art, craft, and business of the theatre. Emphasis is placed on the audience's appreciation of the work of the playwright, director, actor, designer, producer, and critic. Upon completion, students should be able to demonstrate a vocabulary of theatre terms and to recognize the contributions of various theatre artists. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

DRA 112   Literature of the Theatre   3   0   3

Prerequisites:
Corequisites: None
This course provides a survey of dramatic works from the classical Greek through the present. Emphasis is placed on the language of drama, critical theory and background as well as on play reading and analysis. Upon completion, students should be able to articulate, orally and in writing, their appreciation and understanding of dramatic works. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

DRA 120   Voice for Performance   3   0   3

Prerequisites:
Corequisites: None
This course provides guided practice in the proper production of speech for the theatre. Emphasis is placed on improving speech, including breathing, articulation, pronouncation, and other vocal variables. Upon completion, student should able to demonstrate effective theatrical speech.

DRA 122   Oral Interpretation   3   0   3

Prerequisites:
Corequisites: None
This course introduces the dramatic study of literature through performance. Emphasis is placed on analysis and performance of poetry, drama, and prose fiction. Upon completion, students should be able to embody and discuss critically the speakers inherent in literature. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

DRA 130   Acting I   0   6   3

Prerequisites:
Corequisites: None
This course provides an applied study of the actor's craft. Topics include role analysis, training the voice, and body concentration, discipline, and self-evaluation. Upon completion, students should be able to explore their creativity in an acting ensemble.

DRA 131   Acting II   0   6   3

Prerequisites: DRA 130 or Division Consent
Corequisites: None
This course provides additional hands-on practice in the actor's craft. Emphasis is placed on further analysis, characterization, growth, and training for acting competence. Upon completion, students should be able to explore their creativity in an acting ensemble.

DRA 135   Acting for the Camera I   1   4   3

Prerequisites:
Corequisites: None
This course provides an applied study of the camera actor's craft. Topics include commercial, dramatic, and print performance styles. Upon completion, students should be able to explore their creativity in on-camera performance.

DRA 136   Acting for the Camera II   1   4   3

Prerequisites: DRA 135 or Division Consent
Corequisites: None
This course provides additional hands-on study of the camera actor's craft. Emphasis is placed on more advanced camera acting theories, auditioning techniques, daytime drama, feature film, and print advertisement performance styles. Upon completion, students should be able to explore their creativity in on-camera performance.

DRA 140   Stagecraft I   0   6   3

Prerequisites:
Corequisites: None
This course introduces the theory and basic construction of stage scenery and properties. Topics include stage carpentry, scene painting, stage electrics, properties, and backstage organization. Upon completion, students should be able to pursue vocational and avocational roles in technical theatre.

DRA 141   Stagecraft II   0   6   3

Prerequisites: DRA 140 or Division Consent
Corequisites: None
This course provides additional hands-on practice in the elements of stagecraft. Emphasis is placed on the design and implementation of the arts and crafts of technical theatre. Upon completion, students should be able to pursue vocational or avocational roles in technical theatre.

DRA 142   Costuming   2   2   3

Prerequisites:
Corequisites: None
This course covers the techniques of costume construction and crafts processes. Emphasis is placed on learning costuming techniques, using equipment and materials, and finishing production-appropriate costumes. Upon completion, students should be able to demonstrate an understanding of pattern drafting, construction techniques, and costume fitting procedures.

DRA 145   Stage Make-up   1   2   2

Prerequisites:
Corequisites: None
This course covers the research, design, selection of materials, and application of stage make-up prosthetics, wigs, and hairpieces. Emphasis placed on e development of technics, style, and presentation of the finished make-up. Upon completion, students should be able to create and apply make-up, prosthetics, and hairpieces.

DRA 170   Play Production I   0   9   3

Prerequisites:
Corequisites: None
This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.

DRA 171   Play Production II   0   9   3

Prerequisites: DRA 170 or Division Consent
Corequisites: None
This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.

DRA 175   Teleplay Production I   0   9   3

Prerequisites:
Corequisites: None
This course provides an applied laboratory study of the processes involved in production of a dramatic television program. Emphasis is placed on the fundamental practices, principles, and techniques associated with producing dramatic television programming. Upon completion, students should be able to participate in an assigned position with a college dramatic television production.

DRA 176   Teleplay Production II   0   9   3

Prerequisites: DRA 175 or Division Consent
Corequisites: None
This course provides an applied laboratory study of the processes involved in production of a sit-com television program. Emphasis is placed on the fundamental practices, principles, and techniques associated with producing sit-com television programming. Upon completion, students should be able to participate in an assigned position with a college sit-com television production.

DRA 191   Selected Topics in Drama   0-1   0-3   1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

DRA 192   Selected Topics in Drama   0-2   0-6   2

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

DRA 193   Selected Topics in Drama   1-3   0-6   3

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

DRA 270   Play Production III   0   9   3

Prerequisites: DRA 171 or Division Consent
Corequisites: None
This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.

DRA 271   Play Production IV   0   9   3

Prerequisites: DRA 270 or Division Consent
Corequisites: None
This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.

DRA 275   Teleplay Production III   0   9   3

Prerequisites: DRA 176 or Division Consent
Corequisites: None
This course provides an applied laboratory study of the processes involved in production of an action television program. Emphasis is placed on the fundamental practices, principles, and techniques associated with producing action television programming. Upon completion, students should be able to participate in an assigned position with a college action television production.

DRA 276   Teleplay Production IV   0   9   3

Prerequisites: DRA 275
Corequisites: None
This course provides an applied laboratory study of the processes involved in production of a variety television program. Emphasis is placed on the fundamental practices, principles, and techniques associated with producing variety television programming. Upon completion, students should be able to participate in an assigned position with a college variety television production.

DRA 291   Selected Topics in Drama   0-1   0-3   1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

DRA 292   Selected Topics in Drama   0-2   0-6   2

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

DRA 293   Selected Topics in Drama   1-3   0-6   3

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ECO - Economics

	Lecture	Lab	Credit

ECO 151   Survey of Economics   3   0   3

Prerequisites:
Corequisites: None
This course, for those who have not received credit for ECO 251 or 252, introduces basic concepts of micro- and macroeconomics. Topics include supply and demand, optimizing economic behavior, prices and wages, money, interest rates, banking system, unemployment, inflation, taxes, government spending, and international trade. Upon completion, students should be able to explain alternative solutions for economic problems faced by private and government sectors. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. Students should complete any Advancement Studies courses prior to taking this class.*

ECO 251   Principles of Microeconomics   3   0   3

Prerequisites:
Corequisites: None
This course introduces economic analysis of choices made by individuals, businesses, and industries in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be

able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives. This course is intended for those who have not received credit for ECO 151. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. Students should complete any Advancement Studies courses prior to taking this class.*

ECO 252   Principles of Macroeconomics   3   0   3

Prerequisites:

Corequisites: None

This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals. This course is intended for those who have not received credit for ECO 151. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. Students should complete any Advancement Studies courses prior to taking this class.*

EDU - Early Childhood Associate

Lecture   Lab   Credit

EDU 111   Early Childhood Credential I   2   0   2

Prerequisites:

Corequisites: None

This course introduces early childhood education and the role of the teacher in environments that encourage exploration and learning. Topics include professionalism, child growth and development, individuality, family, and culture. Upon completion, students should be able to identify and demonstrate knowledge of professional roles, major areas of child growth and development, and diverse families.

EDU 112   Early Childhood Credential II   2   0   2

Prerequisites:

Corequisites: None

This course introduces developmentally appropriate practices, positive guidance, and standards of health, safety, and nutrition. Topics include the learning environment, planning developmentally appropriate activities, positive guidance techniques, and health, safety, and nutrition standards. Upon completion, students should be able to demonstrate developmentally appropriate activities and positive guidance techniques and describe health/sanitation/nutrition practices that promote healthy environments for children.

EDU 113   Family / Early Child Credentials   2   0   2

Prerequisites:

Corequisites: None

This course covers business/professional practices for family early childhood providers, developmentally appropriate practices, positive guidance, and methods of providing a safe and healthy environment. Topics include developmentally appropriate practices; health, safety and nutrition; and business and professionalism. Upon completion, students should be able to develop a handbook of policies, procedures, and practices for a family child care home.

EDU 119   Early Childhood Education   3   2   4

Prerequisites:

Corequisites: None

This course covers the foundations of the education profession, types of programs, professionalism, and planning quality programs for children. Topics include historical foundations, career options, types of programs, professionalism, observational skills, and planning developmentally appropriate schedules, environments, and activities for children. Upon completion, students should be able to demonstrate observational skills, identify appropriate schedules and environments, develop activity plans, and describe influences on the profession.

EDU 131   Child, Family and Community   3   0   3

Prerequisites:

Corequisites: None

This course covers the relationships between the families, programs for children/schools, and the community. Emphasis is placed on establishing and maintaining positive collaborative relationships with families and community resources. Upon completion, students should be able to demonstrate strategies for effectively working with diverse families and identifying and utilizing community resources.

EDU 144   Child Development I   3   0   3

Prerequisites:

Corequisites: None

This course covers the theories of child development and the developmental sequences of children from conception through the pre-school years for early childhood educators. Emphasis is placed on sequences in physical/motor, social, emotional, cognitive, and language development and appropriate experiences for the young child. Upon completion, students should be able to identify developmental milestones, plan experiences to enhance development, and describe appropriate interaction techniques and environments for typical/atypical development.

EDU 145   Child Development II   3   0   3

Prerequisites:

Corequisites: None

This course covers theories of child development and developmental sequences of children from pre-school through middle childhood for early childhood educators. Emphasis is placed on characteristics of physical/motor, social, emotional, and cognitive/language development and appropriate experiences for children. Upon completion, students should be able to identify developmental characteristics, plan experiences to enhance development, and describe appropriate interaction techniques and environments.

EDU 146   Child Guidance   3   0   3

Prerequisites:

Corequisites: None

This course introduces practical principles and techniques for developmentally appropriate guidance. Emphasis is placed on encouraging self-esteem and cultural awareness, effective communication skills, and direct and indirect guidance techniques and strategies. Upon completion, students should be able to demonstrate strategies which encourage positive social interactions, promote conflict resolution, and develop self-control, self-motivation, and self-esteem in children.

EDU 151   Creative Activities   3   0   3

Prerequisites:

Corequisites: EDU151A

This course covers creative learning environments, planning and implementing developmentally appropriate experiences,

and developing appropriate teaching materials for the classroom. Emphasis is placed on creative activities for children in art, music, movement and physical skills, and dramatics. Upon completion, students should be able to select and evaluate developmentally appropriate learning materials and activities.

EDU 151A   Creative Activities Lab   0   2   1

Prerequisites:
Corequisites: EDU 151
This course provides a laboratory component to complement EDU 151. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate creative activities.

EDU 153   Health, Safety and Nutrition   3   0   3

Prerequisites:
Corequisites: None
This course focuses on promoting and maintaining the health and well-being of children. Topics include health and nutritional needs, safe and healthy environments, and recognition and reporting of child abuse and neglect. Upon completion, students should be able to set up and monitor safe indoor and outdoor environments and implement a nutrition education program.

EDU 188   Issues in Early Child Education   2   0   2

Prerequisites:
Corequisites: None
This course covers topics and issues in early childhood education. Emphasis is placed on current advocacy issues, emerging technology, professional growth experiences, and other related topics. Upon completion, students should be able to list, discuss, and explain current topics and issues in early childhood education.

EDU 221   Children with Special Needs   3   0   3

Prerequisites: EDU 144 and EDU 145 or
                        PSY 244 and PSY 245
Corequisites: None
This course introduces working with children with special needs. Emphasis is placed on the characteristics and assessment of children and strategies for adapting the home and classroom environment. Upon completion, students should be able to recognize atypical development, make appropriate referrals, and work collaboratively to plan, implement, and evaluate inclusion strategies.

EDU 234   Infants, Toddlers and Twos   3   0   3

Prerequisites:
Corequisites: None
This course covers the skills needed to effectively implement group care for infants, toddlers, and two-year olds. Emphasis is placed on child development and developmentally appropriate practices. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate a developmentally appropriate curriculum.

EDU 235   School-Age Dev & Program   2   0   2

Prerequisites:
Corequisites: None
This course presents developmentally appropriate practices in group care for school-age children. Topics include principles of development, environmental planning, and positive guidance techniques. Upon completion, students should be able to discuss developmental principles for children five to twelve years of age and plan and implement age-appropriate activities.

EDU 241   Adult-Child Relations   2   0   2

Prerequisites:
Corequisites: None
This course covers self-concept and effective and active listening skills in positive one-to-one interactions with individuals and groups of children. Emphasis is placed on self-concept development and effective communication techniques used with children. Upon completion, students should be able to identify principles underlying self-concept and demonstrate effective listening and communication skills used by adults with children.

EDU 251   Exploration Activities   3   0   3

Prerequisites:
Corequisites: EDU251A
This course covers discovery experiences in science, math, and social studies. Emphasis is placed on developing concepts for each area and encouraging young children to explore, discover, and construct concepts. Upon completion, students should be able to discuss the discovery approach to teaching, explain major concepts in each area, and plan appropriate experiences for children.

EDU 251A   Exploration Act Lab   0   2   1

Prerequisites:
Corequisites: EDU 251
This course provides a laboratory component to complement EDU 251. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate science, math, and social studies activities for children.

EDU 254   Music & Move for Children   1   2   2

Prerequisites:
Corequisites: None
This course covers the use of music and creative movement for children. Topics include a general survey of the basic elements of music and planning, designing, and implementing music and movement experiences for creative learning. Upon completion, students should be able to use voice and various musical instruments to provide musical and movement activities for children.

EDU 259   Curriculum Planning   3   0   3

Prerequisites: EDU 112, EDU 113, or EDU 119
Corequisites: None
This course covers early childhood curriculum planning. Topics include philosophy, curriculum, indoor and outdoor environmental design, scheduling, observation and assessment, and instructional planning and evaluation. Upon completion, students should be able to assess children and curriculum; plan for daily, weekly, and long-range instruction; and design environments with appropriate equipment and supplies.

**EDU 261   Early Childhood
                        Administration I   2   0   2**

Prerequisites:
Corequisites: None
This course covers the policies, procedures, and responsibilities for the management of early childhood education programs. Topics include implementation of goals, principles of supervision, budgeting and financial management, and meeting the standards for a NC Child Day Care license. Upon completion, students should be able to develop program goals, explain licensing standards, determine budgeting needs, and describe effective methods of personnel supervision.

**EDU 262   Early Childhood
                 Administration II   3   0   3**

Prerequisites: EDU 261
Corequisites: None

This course provides a foundation for budgetary, financial, and personnel management of the child care center. Topics include budgeting, financial management, marketing, hiring, supervision, and professional development of a child care center. Upon completion, students should be able to formulate marketing, financial management, and fund development plans and develop personnel policies, including supervision and staff development plans.

EDU 263   Dev School-Age Program   2   0   2

Prerequisites:
Corequisites: None

This course introduces the methods and procedures for operating a school-age program in either the public or proprietary setting. Emphasis is placed on construction and organizing the physical environment as well as planning and developing a school-age program. Upon completion, students should be able to plan and develop a quality school-age program.

EDU 280   Literacy Experiences   3   0   3

Prerequisites:
Corequisites: EDU280A

This course covers literacy, early literacy development, and appropriate early experiences with books and writing. Emphasis is placed on reading and writing readiness, major approaches used in teaching literacy, and strategies for sharing quality in children's literature. Upon completion, students should be able to select, plan, and evaluate appropriate early literacy experiences.

EDU 280A   Literacy Experiences Lab   0   2   1

Prerequisites:
Corequisites: EDU 280

This course provides a laboratory component to complement EDU 280. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate early literacy experiences.

**EDU 288   Advanced Issues in Early
                 Child Education   2   0   2**

Prerequisites:
Corequisites: None

This course covers advanced topics and issues in early childhood. Emphasis is placed on current advocacy issues, emerging technology, professional growth experiences, and other related topics. Upon completion, students should be able to list, discuss, and explain advanced current topics and issues in early childhood education.

**EDU 297   Seminar in Early Childhood
                 Education   2   0   2**

Prerequisites: Enrollment in the program or
                     permission
Corequisites: COE121N

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ELC - Electricity

*See also ELN Electronics and CET Computer Engineering
Technology for additional courses.*

		Lecture	Lab	Credit

ELC 110   Telecom Circuits/Devices   3   3   4

Prerequisites:
Corequisites: None

This course introduces the basic AC/DC components, semiconductor-based devices, and other related components as applied to telecom circuits. Emphasis is placed on analysis, applications, and testing of these circuits. Upon completion, students will be able to construct, verify, analyze, and troubleshoot these circuits.

ELC 111   Introduction to Electricity   2   2   3

Prerequisites:
Corequisites: None

This course introduces the fundamental concepts of electricity and test equipment to non-electrical/electronic majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance); components (resistors, inductors, and capacitors); power; and operation of test equipment. Upon completion, students should be able to construct and analyze simple DC and AC circuits using electrical test equipment.

ELC 112   DC/AC Electricity   3   6   5

Prerequisites:
Corequisites: None

This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment, and other related topics. Upon completion, students should be able to construct, verify, and analyze simple DC/AC circuits.

ELC 113   Basic Wiring I   2   6   4

Prerequisites:
Corequisites: None

This course introduces the care/usage of tools and materials used in electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical blueprint reading; planning, layout, and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with basic electrical installations.

ELC 114   Basic Wiring II   2   6   4

Prerequisites: ELC 113
Corequisites: None

This course provides additional instruction in the application of electrical tools, materials, and test equipment associated with electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout, and installation of equipment and conduits; and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with electrical installations.

ELC 115   Industrial Wiring   2   6   4

Prerequisites: ELC 113
Corequisites: None

This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment.

ELC 116 Telecom Cabling   1   2   2

Prerequisites: ELC 110
Corequisites: None
This course introduces the theory and practical application of both copper and fiber cabling for telecom systems. Topics include transmission theory, noise, standards, cable types and systems, connectors, physical layer components, installation, and ground/shielding techniques. Upon completion, students should be able to choose the correct cable, install, test, and troubleshoot cabling for telecom.

ELC 117 Motors and Controls   2   6   4

Prerequisites: ELC 112 or ELC 131
Corequisites: None
This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.

ELC 118 National Electrical Code   1   2   2

Prerequisites:
Corequisites: None
This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC.

ELC 119 NEC Calculations   1   2   2

Prerequisites:
Corequisites: None
This course covers branch circuit, feeder, and service calculations. Emphasis is placed on sections of the National Electrical Code related to calculations. Upon completion, students should be able to use appropriate code sections to size wire, conduit, and overcurrent devices for branch circuits, feeders, and service.

ELC 121 Electrical Estimating   1   2   2

Prerequisites: ELC 113
Corequisites: None
This course covers the principles involved in estimating electrical projects. Topics include take-offs of materials and equipment, labor, overhead, and profit. Upon completion, students should be able to estimate simple electrical projects.

ELC 125 Diagrams and Schematics   1   2   2

Prerequisites:
Corequisites: None
This course covers the interpretation of electrical diagrams, schematics, and drawings common to electrical applications. Emphasis is placed on reading and interpreting electrical diagrams and schematics. Upon completion, students should be able to read and interpret electrical diagrams and schematics.

ELC 126 Electrical Computations   2   2   3

Prerequisites:
Corequisites: None
This course introduces the fundamental applications of mathematics which are used by an electrical/electronics technician. Topics include whole numbers, fractions, decimals, powers, roots, simple electrical formulas, and usage of a scientific calculator. Upon completion, students should be able to solve simple electrical mathematical problems.

ELC 127 Software for Technicians   1   2   2

Prerequisites:
Corequisites: None
This course introduces computer software which can be used to solve electrical/electronics problems. Topics include electrical/electronics calculations, applications, and controls. Upon completion, students should be able to utilize a personal computer for electrical/electronics- related applications.

ELC 128 Introduction to Programmable Logic Controller (PLC)   2   3   3

Prerequisites:
Corequisites: None
This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to install PLCs and create simple programs.

ELC 131 DC/AC Circuit Analysis   4   3   5

Prerequisites:
Corequisites: MAT 121 or MAT 171
This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation software, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify, and analyze DC/AC circuits; and properly use test equipment.

ELC 132 Electrical Drawings   1   3   2

Prerequisites:
Corequisites: None
This course introduces the technical documentation that is typically found or used in the industrial environment. Topics include interpretation of service manuals, freehand sketching of lines, orthographic views and dimensions, and blueprint reading. Upon completion, students should be able to interpret technical documents and blueprints and use basic drafting skills to prepare usable field drawings.

ELC 133 Advanced Circuit Analysis   2   3   3

Prerequisites: ELC 131
Corequisites: None
This course covers additional concepts of DC/AC electricity, the use of test equipment, and measurement techniques for electrical/electronics majors. Topics include the application of network theorems such as delta/wye transformations, Superposition Theorem, and other advanced circuit analysis principles. Upon completion, students should be able to construct and analyze DC/AC circuits used advanced circuit analysis theorems, circuit simulators, and test equipment.

ELC 135 Electrical Machines I   2   2   3

Prerequisites: ELC 131
Corequisites: None
This course covers magnetic circuits, transformers, DC/AC generators, and a review of the three-phase circuit fundamentals including power factor. Topics include magnetic terms and calculations, transformer calculations based on primary or secondary equivalent circuits, and generator regulation and efficiency calculations. Upon completion, students should be able to perform regulation and efficiency calculations for DC/AC single- and three-phase transformer and generator circuits. Emphasis will be placed upon the experimental measure-

ment of machine operational data and its use in performance evaluation.

ELC 136   Electrical Machines II   3   3   4

Prerequisites: ELC 135
Corequisites: None

This course covers DC/AC motor fundamentals including applications and control. Topics include control devices, synchronous and induction single and polyphase AC motors, DC motors, stepper, and special purpose motors. Upon completion, students should be able to perform regulation and efficiency calculations and apply motor theory to practical control applications. Laboratory experiments will be used to relate calculated machine data to actual performance.

ELC 213   Instrumentation   3   2   4

Prerequisites: ELC 111, ELC 112, or ELC 131
Corequisites: None

This course covers the fundamentals of instrumentation used in industry. Emphasis is placed on electric, electronic, and pneumatic instruments. Upon completion, students should be able to design, install, maintain, and calibrate instrumentation.

ELC 215   Electrical Maintenance   2   3   3

Prerequisites: ELC 117
Corequisites: None

This course introduces the theory of maintenance and the skills necessary to maintain electrical equipment found in industrial and commercial facilities. Topics include maintenance theory, predictive and preventive maintenance, electrical equipment operation and maintenance, and maintenance documentation. Upon completion, students should be able to perform maintenance on electrical equipment in industrial and commercial facilities.

ELC 228   Programmable Logic Controllers
           (PLC) Applications   2   6   4

Prerequisites: ELC 128
Corequisites: None

This course continues the study of the programming and applications of programmable logic controllers. Emphasis is placed on advanced programming, networking, advanced I/O modules, reading and interpreting error codes, and troubleshooting. Upon completion, students should be able to program and troubleshoot programmable logic controllers.

ELC 229   Applications Project   1   3   2

Prerequisites: ELC 112, ELC 113, or ELC 140
Corequisites: None

This course provides an individual and/or integrated team approach to a practical project as approved by the instructor. Topics include project selection and planning, implementation and testing, and a final presentation. Upon completion, students should be able to plan and implement an applications-oriented project.

ELC 231   Electric Power Systems   3   2   4

Prerequisites: ELC 135
Corequisites: None

This course covers the basic principles of electric power systems, including transmission lines, generator and transformer characteristics, and fault detection and correction. Emphasis is placed on line diagrams and per unit calculations for circuit performance analysis in regards to voltage regulation, power factor, and protection devices. Upon completion, students should be able to analyze simple distribution subsystems, calculate fault current, and determine the size and type of circuit protection

devices. Students will also investigate electronic power control applications in a practical laboratory environment.

ELC 234E Electrical System Design   2   3   3

Prerequisites: ELC 112, ELC 131, or ELC 140
Corequisites: None

This course introduces the principles of electrical design for commercial and industrial facilities. Topics include services, high and low power distribution, switchboards, panel boards, motor control centers, switch gear, overcurrent protection, and grounding. Upon completion, students should be able to design services, feeders, and branch circuits for typical commercial/industrial applications in accordance with the National Electrical Code.

ELN - Electronics

See also ELC Electricity and CET Computer Engineering Technology for additional courses.

                        Lecture   Lab   Credit

ELN 131 Electronic Devices   3   3   4

Prerequisites: ELC 112, ELC 131, or ELC 140
Corequisites: None

This course includes semiconductor-based devices such as diodes, bipolar transistors, FETs, thyristors, and related components. Emphasis is placed on analysis, selection, biasing, and applications in power supplies, small signal amplifiers, and switching and control circuits. Upon completion, students should be able to construct, analyze, verify, and troubleshoot discrete component circuits using appropriate techniques and test equipment.

ELN 131E   Electronic Devices   3   3   4

Prerequisites: ELC 112, ELC 131, or ELC 140
Corequisites: None

This course includes semiconductor-based devices such as diodes, bipolar transistors, FETs, thyristors, and related components. Emphasis is placed on analysis, selection, biasing, and applications in power supplies, small signal amplifiers, and switching and control circuits. Upon completion, students should be able to construct, analyze, verify, and troubleshoot discrete component circuits using appropriate techniques and test equipment. ELN 131E is more indepth than ELN 131 and is meant for Computer/Electrical/Electronics Engineering Technology students.

ELN 132   Linear Integrated Circuits
           Applications   3   3   4

Prerequisites: ELN 131E or BMT 113
Corequisites: None

This course introduces the characteristics and applications of linear integrated circuits. Topics include op-amp circuits, differential amplifiers, instrumentation amplifiers, waveform generators, active filters, PLLs, and IC voltage regulators. Upon completion, students should be able to construct, analyze, verify, and troubleshoot linear integrated circuits using appropriate techniques and test equipment.

ELN 133   Digital Electronics   3   3   4

Prerequisites: ELC 111, ELC 112, ELC 131 or ELC 140
Corequisites: None

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, MSI and LSI circuits, AC/DC conversion, and other related topics. Upon completion, students should be able to con-

struct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.

ELN 133E   Digital Electronics   3   3   4
Prerequisites: ELC 112, ELC 131, or ELC 140
Corequisites: None
This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, MSI and LSI circuits, AC/DC conversion, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment. ELN 133E is more in depth than ELN 133 and is meant for Computer/Electrical/Electronics Engineering Technology students.

ELN 150   CAD for Electronics   1   3   2
Prerequisites: CIS 110 or CIS 111
Corequisites: None
This course introduces computer-aided drafting (CAD) with an emphasis on applications in the electronics field. Topics include electronics industry standards (symbols, schematic diagrams, layouts); drawing electronic circuit diagrams; and specialized electronic drafting practices and components such as resistors, capacitors, and ICs. Upon completion, students should be able to prepare electronic drawings with CAD software.

ELN 154   Introduction to Data
Communications   2   3   3
Prerequisites: ELN 133E
Corequisites: None
This course introduces the principal elements and theory (analog and digital techniques) of data communication systems and how they are integrated as a complete network. Topics include an overview of data communication, OSI model, transmission modes, serial and parallel interfaces, applications of ICs, protocols, network configurations, modems, and related applications. Upon completion, students should be able to demonstrate knowledge of the concepts associated with data communication systems and high speed networks.

ELN 229   Industrial Electronics   2   4   4
Prerequisites: ELC 112, ELC 131, or ELC 140
Corequisites: None
This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application, and operating characteristics of semiconductor devices (filters, rectifiers, FET, SCR, Diac, Triac, Op-amps, etc). Upon completion, students should be able to install and/or troubleshoot these devices for proper operation in an industrial electronic circuit.

ELN 232   Introduction to Microprocessors   3   3   4
Prerequisites: ELN 133E
Corequisites: None
This course introduces microprocessor architecture and microcomputer systems including memory and input/output interfacing. Topics include assembly language programming, bus architecture, bus cycle types, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment.

ELN 233   Microprocessor Systems   3   3   4
Prerequisites: ELN 232
Corequisites: None
This course covers the application and design of microprocessor control systems. Topics include control and interfac-

ing of systems using AD/DA, serial/parallel I/O, communication protocols, and other related applications. Upon completion, students should be able to design, construct, program, verify, analyze, and troubleshoot fundamental microprocessor interface and control circuits using related equipment.

ELN 234   Communication Systems   3   3   4
Prerequisites: ELN 132 or ELN 140
Corequisites: None
This course introduces the fundamentals of electronic communication systems. Topics include the frequency spectrum, electrical noise, modulation techniques, characteristics of transmitters and receivers, and digital communications. Upon completion, students should be able to interpret analog and digital communication circuit diagrams, analyze transmitter and receiver circuits, and use appropriate communication test equipment.

ELN 235   Data Communication System   3   3   4
Prerequisites: ELN 133E
Corequisites: None
This course covers data communication systems and the transmission of digital information from source to destination. Topics include data transmission systems, serial interfaces and modems, protocols, networks, and other related topics. Upon completion, students should be able to demonstrate knowledge of the concepts associated with data communication systems.

ELN 236   Fiber Optics and Lasers   3   2   4
Prerequisites: ELN 234
Corequisites: None
This course introduces the fundamentals of fiber optics and lasers. Topics include the transmission of light; characteristics of fiber optic and lasers and their systems; fiber optic production; types of lasers; and laser safety. Upon completion, students should be able to understand fiber optic communications and basic laser fundamentals.

ELN 237   Local Area Networks   2   3   3
Prerequisites: CIS 110 or CIS 111
Corequisites: None
This course introduces the fundamentals of local area networks and their operation in business and computer environments. Topics include the characteristics of network topologies, system hardware (repeaters, bridges, routers, gateways), system configuration, and installation and administration of the local area networks (LAN). Upon completion, students should be able to install, maintain, and manage a local area network.

ELN 238   Advanced Local Area Networks   2   3   3
Prerequisites: ELN 237
Corequisites: None
This course covers advanced concepts, tools, and techniques associated with servers, workstations, and overall local area network performance. Topics include network security and configuration, system performance and optimization, communication protocols and packet formats, troubleshooting techniques, multiplatform integration, and other related topics. Upon completion, students should be able to use advanced techniques to install, manage, and troubleshoot networks and optimize server and workstation performance.

ELN 247   Electronic Application Project   1   3   2
Prerequisites: ELN 131E or ELN 140
Corequisites: None
This course provides a structured approach to an application-oriented electronics project. Emphasis is placed on selecting, planning, implementing, testing, and presenting an application-

oriented project. Upon completion, students should be able to present and demonstrate an electronics application-oriented project. Project analysis, measurement, and performance evaluation will serve as the basis for a project final report.

ELN 260 Program Logic Controllers 3 3 4
Prerequisites: ELN 133 or ELN 133E
Corequisites: None

This course provides a detailed study of PLC applications, with a focus on design of industrial control circuits using the PLC. Topics include PLC components, memory organization, math instructions, programming documentation, input/output devices, and applying PLCs in the design of industrial control systems. Upon completion, students should be able to design and program a PLC system to perform a wide variety of industrial control functions.

ELN 275 Troubleshooting 1 2 2
Prerequisites:
Corequisites: ELN 133E or ELN 141

This course covers techniques of analyzing and repairing failures in electronic equipment. Topics include safety, signal tracing, use of service manuals, and specific troubleshooting methods for analog, digital, and other electronics-based circuits and systems. Upon completion, students should be able to logically diagnose and isolate faults and perform necessary repairs to meet manufacturers' specifications. Students will utilize the relationship of system hardware failures to component failures to establish diagnose-and-repair processes.

EGR - Engineering

See also CIV Civil Engineering Technology, and SRV Surveying Technology for other Technology courses.

Lecture Lab Credit

EGR 115 Intro to Technology 2 6 4
Prerequisites: None
Corequisites: MAT 121

This course introduces the basic skills and career fields for technicians. Topics include career options, technical vocabulary, dimensional analysis, measurement systems, engineering graphics, calculator applications, professional ethics, safety practices, and other related topics. Upon completion, students should be able to demonstrate an understanding of the basic technologies, prepare drawings and sketches, and perform computations using a scientific calculator.

ENG - English

Lecture Lab Credit

ENG 101 Applied Communications I 3 0 3
Prerequisites: None
Corequisites: None

This course is designed to enhance reading and writing skills for the workplace. Emphasis is placed on technical reading, job-related vocabulary, sentence writing, punctuation, and spelling. Upon completion, students should be able to identify main ideas with supporting details and produce mechanically correct short writings appropriate to the workplace. This is a diploma-level course.

ENG 111 Expository Writing 3 0 3
Prerequisites: ENG 090 and RED 090; or ENG 095; or placement test; or consent of Division Director.
Corequisites: None

This course is the required first course in a series of two designed to develop the ability to produce clear expository prose. Emphasis is placed on the writing process including audience analysis, topic selection, thesis support and development, editing, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.*

ENG 112 Argument-Based Research 3 0 3
Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None

This course, the second in a series of two, introduces research techniques, documentation styles, and argumentative strategies. Emphasis is placed on analyzing data and incorporating research findings into documented argumentative essays and research projects. Upon completion, students should be able to summarize, paraphrase, interpret, and synthesize information from primary and secondary sources using standard research format and style. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.*

ENG 113 Literature-Based Research 3 0 3
Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None

This course, the second in a series of two, expands the concepts developed in ENG 111 by focusing on writing that involves literature-based research and documentation. Emphasis is placed on critical reading and thinking and the analysis and interpretation of prose, poetry, and drama: plot, characterization, theme, cultural context, etc. Upon completion, students should be able to construct mechanically-sound, documented essays and research papers that analyze and respond to literary works. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.*

ENG 114 Professional Research and Reporting 3 0 3
Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None

This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research, listening, critical reading and thinking, analysis, interpretation, and design used in oral and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.*

ENG 125 Creative Writing I 3 0 3
Prerequisites: ENG 111 or consent of Division Director.
Corequisites: ENG 112, ENG 113, or ENG 114

This course is designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing fiction, poetry, and sketches. Upon completion, students should be able to craft and critique their own writing and critique the writing of others. The primary focus of this course is poetry

and fiction although some time will be devoted to non-fiction.
Note: This course is a Writing Intensive Elective for UNCC.

ENG 126   Creative Writing II   3   0   3
Prerequisites: ENG 125 or consent of Division Director.
Corequisites: None
This course is designed as a workshop approach for advancing imaginative and literary skills. Emphasis is placed on the discussion of style, techniques, and challenges for first publications. Upon completion, students should be able to submit a piece of their writing for publication. The main focus of this course will be on poetry and fiction; however, some attention will be devoted to creative non-fiction.
Note: This course is a Writing Intensive Elective for UNCC.

ENG 133   Introduction to the Novel   3   0   3
Prerequisites: ENG 111 or consent of Division Director.
Corequisites: ENG 112, ENG 113 or ENG 114
This course provides intensive study of the novel as a literary form, based on close reading of representative texts. Emphasis is placed on the development and analysis of the novel. Upon completion, students should be able to interpret, analyze, and discuss the distinguishing features of the novel.

ENG 231   American Literature I   3   0   3
Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.
Corequisites: None
This course covers selected works in American literature from its beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical, and cultural contexts. Students will be introduced to traditional and nontraditional writers, significant literary trends and movements, literary terminology, and a variety of critical approaches. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ENG 232   American Literature II   3   0   3
Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.
Corequisites: None
This course covers selected works in American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. Students will be introduced to traditional and nontraditional writers, significant literary trends and movements, literary terminology and a variety of critical approaches. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ENG 241   British Literature I   3   0   3
Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.
Corequisites: None
This course covers selected works in British literature from its beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ENG 242   British Literature II   3   0   3
Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.
Corequisites: None
This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ENG 251   Western World Literature I   3   0   3
Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.
Corequisites: None
This course provides a survey of selected European works from the Classical period through the Renaissance. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ENG 252   Western World Literature II   3   0   3
Prerequisites: ENG 112, ENG 113 or ENG 114 or consent of Division Director.
Corequisites: None
This course provides a survey of selected European works from the Neoclassical period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

ENG 253   The Bible as Literature   3   0   3
Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.
Corequisites: None
This course introduces the Hebrew Old Testament and the Christian New Testament as works of literary art. Emphasis is placed on the bible's literary aspects including history, composition, structure, and cultural contexts. Upon completion, students should be able to identify and analyze selected books and passages using appropriate literary conventions.

ENG 271   Contemporary Literature   3   0   3
Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.
Corequisites: None
This course includes a study of contemporary literature. Emphasis is placed on literary and cultural trends of selected texts. Upon completion, students should be able to interpret, analyze, and respond to the literature.

ENG 273   African-American Literature   3   0   3
Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.
Corequisites: None
This course provides a survey of the development of African-American literature from its beginnings to the present. Emphasis is placed on historical and cultural context, themes, literary traditions, and backgrounds of the authors. Upon com-

pletion, students should be able to interpret, analyze, and respond to selected texts.

ENG 274   Literature by Women   3   0   3

Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.

Corequisites: None

This course provides an analytical study of the works of several women authors. Emphasis is placed on the historical and cultural contexts, themes and aesthetic features of individual works, and biographical backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and discuss selected works.

ENG 275   Science Fiction   3   0   3

Prerequisites: ENG 112, ENG 113, or ENG 114 or consent of Division Director.

Corequisites: None

This course covers the relationships between science and literature through analysis of short stories and novels. Emphasis is placed on scientific discoveries that shaped Western culture and our changing view of the universe as reflected in science fiction literature. Upon completion, students should be able to trace major themes and ideas and illustrate relationships between science, world view, and science fiction literature.

ENG - Advancement Studies (ENG 060-090).

See Pre-College section of this catalog.

EHS - Environment Health and Safety

	Lecture	Lab	Credit

EHS 111   Occupational Safety / Engineering   5   0   5

Prerequisites:

Corequisites: None

This course introduces the role of the safety practitioner and safety engineer in business, industrial, and institutional settings. Topics include Workers Compensation, record keeping and training, and correct handling procedures for hazardous materials. Upon completion, students should be able to perform preliminary hazards analysis, fault tree analysis, and other safety monitoring and compliance practices.

EHS 112   Industrial Hygiene   5   0   5

Prerequisites:

Corequisites: None

This course provides a clear understanding of the history and development of the industrial hygiene movement, with emphasis on recognizing specific health hazards. Topics include an introduction to harmful agents, routes of entry, skin diseases, types of airborne contaminants, and a review of federal agencies. Upon completion, students should be able to identify the role and function of the industrial hygienist relative to the industrial environment.

EHS 113   OSHA Electrical Safety   3   0   3

Prerequisites:

Corequisites: None

This course covers OSHA electrical safety regulations that apply to general industry. Emphasis is placed on controlling electrical hazards in the workplace, understanding ground paths, recognizing electrical hazards, and interpreting electrical stan-

dards. Upon completion, students should be able to demonstrate an understanding of OSHA electrical safety regulations within general industry.

EHS 114   OSHA Regulations   3   0   3

Prerequisites:

Corequisites: None

This course covers OSHA regulations that govern workplace safety. Emphasis is placed on problems and case studies in which applicable OSHA regulations are identified and interpreted. Upon completion, students should be able to identify incidents of non-compliance and recommend compliance strategies.

EHS 116   Environmental Management   4   0   4

Prerequisites:

Corequisites: None

This course covers management of environmental processes in general industry. Emphasis is placed on environmental chemistry, air quality compliance, environmental toxicology, waste disposal techniques, and air emission technology. Upon completion, students should be able to provide leadership in the environmental management area and demonstrate knowledge of applicable environmental management techniques.

EHS 211   Environmental Regulations   5   0   5

Prerequisites:

Corequisites: None

This course introduces general industry environmental regulations. Emphasis is placed on problems and case studies in which applicable EPA regulations are identified and interpreted. Upon completion, students should be able to identify incidents of non-compliance and recommend compliance strategies.

EHS 212   Industrial Hygiene Sampling   3   2   4

Prerequisites: CHM 131

Corequisites: None

This course covers industrial hygiene and sampling. Topics include the calibration and operation of sampling equipment and instruments. Upon completion, students should be able to perform basic industrial hygiene sampling procedures and interpret the results.

EHS 213   Environmental Liability   3   0   3

Prerequisites:

Corequisites: None

This course covers major federal and state laws concerning environmental liability. Topics include a review of SARA, the Resource Conservation and Recovery Act of 1976, and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Upon completion, students should be able to discuss and explain major principles of environmental legal liability.

EHS 218   Industrial Ergonomics   3   0   3

Prerequisites:

Corequisites: None

This course covers ergonomic issues, including cumulative trauma disorders and carpal tunnel syndrome. Emphasis is placed on biomechanics, hand-wrist injuries, repetitive-motion disorders, and appropriate record keeping requirements. Upon completion, students should be able to provide ergonomic assistance throughout the facility, conduct ergonomic audits, and recognize ergonomic problems in the work place.

FIP - Fire Protection Technology

	Lecture	Lab	Credit

FIP 120　Introduction to Fire Protection　2　0　2
Prerequisites:
Corequisites: None
This course provides an overview of the history, development, methods, systems, and regulations as they apply to the fire protection field. Topics include history, evolution, statistics, suppression, organizations, careers, curriculum, and other related topics. Upon completion, students should be able to demonstrate a broad understanding of the fire protection field.

FIP 124　Fire Prevention and Public Education　3　0　3
Prerequisites:
Corequisites: None
This course introduces fire prevention concepts as they relate to community and industrial operations. Topics include the development and maintenance of fire prevention programs, educational programs, and inspection programs. Upon completion, students should be able to research, develop, and present a fire safety program to a citizens or industrial group.

FIP 128　Arson Investigation　3　0　3
Prerequisites:
Corequisites: None
This course covers procedures for determining the origin and cause of accidental and incendiary fires. Topics include collection and preservation of evidence, detection and determination of accelerants, courtroom procedure and testimony, and documentation of the fire scene. Upon completion, students should be able to conduct a competent fire investigation and present those findings to appropriate officials or equivalent.

FIP 132　Building Construction　3　0　3
Prerequisites:
Corequisites: None
This course covers the principles and practices related to various types of building construction, including residential and commercial, as impacted by fire conditions. Topics include types of construction and related elements, fire resistive aspects of construction materials, building codes, collapse, and other related topics. Upon completion, students should be able to understand and recognize various types of construction and their positive or negative aspects as related to fire conditions.

FIP 136　Inspections and Codes　3　0　3
Prerequisites:
Corequisites: None
This course covers the fundamentals of fire and building codes and procedures to conduct an inspection. Topics include review of fire and building codes, writing inspection reports, identifying hazards, plan reviews, site sketches, and other related topics. Upon completion, students should be able to conduct a fire code compliance inspection and produce a written report.

FIP 140　Industrial Fire Protection　2　0　2
Prerequisites:
Corequisites: None
This course covers fire protection systems in industrial facilities. Topics include applicable health and safety standards, insurance carrier regulations, other regulatory agencies, hazards of local industries, fire brigade operation, and loss prevention programs. Upon completion, students should be able to prepare a procedure to plan, organize, and evaluate an industrial facility's fire protection.

FIP 144　Sprinklers and Auto Alarms　3　2　4
Prerequisites:
Corequisites: None
This course introduces various types of automatic sprinklers, standpipes, and fire alarm systems. Topics include wet or dry systems, testing and maintenance, water supply requirements, fire detection and alarm systems, and other related topics. Upon completion, students should be able to demonstrate a working knowledge of various sprinkler and alarm systems and required inspection and maintenance.

FIP 148　Fixed and Portable Extinguishing Systems　2　2　3
Prerequisites:
Corequisites: None
This course provides a study of various types of fixed and portable extinguishing systems, their operation, installation, and maintenance. Topics include applications, testing, and maintenance of Halon, carbon dioxide, dry chemical, and special extinguishing agents in fixed and portable systems. Upon completion, students should be able to identify various types of fixed and portable systems, including their proper application and maintenance.

FIP 152　Fire Protection Law　2　0　2
Prerequisites:
Corequisites: None
This course covers fire protection law. Topics include torts, legal terms, contracts, liability, review of case histories, and other related topics. Upon completion, students should be able to discuss laws, codes, and ordinances as they relate to fire protection.

FIP 220　Fire Fighting Strategies　3　0　3
Prerequisites:
Corequisites: None
This course provides preparation for command of initial incident operations involving emergencies within both the public and private sector. Topics include incident management, fire-ground tactics and strategies, incident safety, and command/control of emergency operations. Upon completion, students should be able to describe the initial incident system as it relates to operations involving various emergencies in fire and non-fire situations.

FIP 221　Advanced Fire Fighting Strategies　3　0　3
Prerequisites: FIP 220
Corequisites: None
This course covers command-level operations for multi-company/agency operations involving fire and non-fire emergencies. Topics include advanced ICS, advanced incident analysis, command-level fire operations, and control of both man made and natural major disasters. Upon completion, students should be able to describe proper and accepted systems for the mitigation of emergencies at the level of overall scene command.

FIP 224　Instructional Methodology　4　0　4
Prerequisites:
Corequisites: None
This course covers the knowledge, skills, and abilities needed to train others in fire service operations. Topics include planning, presenting, and evaluating lesson plans, learning styles, use of media, communication, and other related topics. Upon completion, students should be able to meet all requirements of NFPA 1041 Fire Service Instructor Level Two.

**FIP 230   Chemistry of Hazardous
               Materials I   5   0   5**

Prerequisites:
Corequisites: None
This course covers the evaluation of hazardous materials.
Topics include use of the periodic table, hydrocarbon deriva-
tives, placards and labels, parameters of combustion, and spill
and leak mitigation. Upon completion, students should be able
to demonstrate knowledge of the chemical behavior of haz-
ardous materials.

**FIP 231   Chemistry of Hazardous
               Materials II   4   2   5**

Prerequisites: FIP 230
Corequisites: None
This course covers hazardous materials characterization, prop-
erties, location, handling and response guidelines, hazard survey
principles, and other related topics. Topics include radiation haz-
ards, instruments, inspections, and detection of the presence of
hazardous materials in industrial/commercial occupancies. Upon
completion, students should be able to inspect chemical/radioac-
tive sites and use on-site visits to gasoline and/or LPG storage
facilities/chemical plants to develop a pre-plan.

**FIP 232   Hydraulics and Water
               Distribution   3   2   4**

Prerequisites: MAT 115
Corequisites: None
This course covers the flow of fluids through fire hoses, noz-
zles, appliances, pumps, standpipes, water mains, and other
devices. Emphasis is placed on supply and delivery systems, fire
flow testing, hydraulic calculations, and other related topics.
Upon completion, students should be able to perform hydraulic
calculations, conduct water availability tests, and demonstrate
knowledge of water distribution systems.

**FIP 264   Flame Propagation and Materials
               Rating   1   4   3**

Prerequisites:
Corequisites: None
This course covers the role of interior finishes in fires, smoke
obscuration and density, flame spread, pyrolysis, and other related
topics. Emphasis is placed on testing equipment which includes
Rack Impingement, Bench Furnace, and the two-foot tunnel.
Upon completion, students should be able to understand the oper-
ation of the testing equipment and compile a reference notebook.

FIP 276   Managing Fire Services   3   0   3

Prerequisites:
Corequisites: None
This course provides an overview of fire department opera-
tive services. Topics include finance, staffing, equipment, code
enforcement, management information, specialized services,
legal issues, planning, and other related topics. Upon comple-
tion, students should be able to understand concepts and apply
fire department management and operations principles.

FLO - Floriculture

	Lecture	Lab	Credit

FLO 189   Basic Floral Design   1   2   2

Prerequisites:
Corequisites: None
This course provides general knowledge of floral design on a
non-commercial level. Topics include simple corsage work,

vase arrangements, and holiday novelty items. Upon comple-
tion, students should be able to tie a bow and construct simple
corsages, bud vases, and holiday items.

FRE - French

	Lecture	Lab	Credit

FRE 111   Elementary French I   3   0   3

Prerequisites: None
Corequisites: FRE 181
This course introduces the fundamental elements of the
French language within a cultural context. Emphasis is placed
on the development of basic listening, speaking, reading, and
writing skills. Upon completion, students should be able to com-
prehend and respond with grammatical accuracy to spoken and
written French and demonstrate cultural awareness. When regis-
tering for this class, students will automatically be registered for
FRE 181, French Lab 1. *This course has been approved to satis-
fy the Comprehensive Articulation Agreement general education
core requirement in humanities/fine arts.*

FRE 112   Elementary French II   3   0   3

Prerequisites: FRE 111 or consent of Division Director.
Corequisites: FRE 182
This course is a continuation of FRE 111 focusing on the
fundamental elements of the French language within a cultural
context. Emphasis is placed on the progressive development of
listening, speaking, reading, and writing skills. Upon comple-
tion, students should be able to comprehend and respond with
increasing proficiency to spoken and written French and demon-
strate further cultural awareness. When registering for this class,
students will automatically be registered for FRE 182, French
Lab 2. *This course has been approved to satisfy the Comprehen-
sive Articulation Agreement general education core require-
ment in humanities/fine arts.*

FRE 120   French for the Workplace   3   0   3

Prerequisites: None
Corequisites: None
This course offers applied French for the workplace to facili-
tate basic communication with people whose native language is
French. Emphasis is placed on oral communication and career-
specific vocabulary that targets business and industry. Upon com-
pletion, students should be able to communicate at a functional
level with native speakers and demonstrate cultural sensitivity.

FRE 161   Cultural Immersion   2   3   3

Prerequisites: FRE 111
Corequisites: None
This course explores Francophone culture through intensive
study on campus and field experience in a host country or area.
Topics include an overview of linguistic, historical, geographi-
cal, sociopolitical, economic, and/or artistic concerns of the area
visited. Upon completion, students should be able to exhibit
first-hand knowledge of issues pertinent to the host area and
demonstrate an understanding of cultural differences. This
course has been approved to satisfy the Comprehensive Articu-
lation Agreement pre-major and/or elective course requirement.

FRE 181   French Lab 1   0   2   1

Prerequisites: None
Corequisites: FRE 111
This course provides an opportunity to enhance acquisition
of the fundamental elements of the French language. Emphasis
is placed on the progressive development of basic listening,

speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness.

FRE 182   French Lab 2   0   2   1

Prerequisites: FRE 181 or consent of Division Director.
Corequisites: FRE 112

This course provides an opportunity to enhance acquisition of the fundamental elements of the French language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and demonstrate cultural awareness.

FRE 211   Intermediate French I   3   0   3

Prerequisites: FRE 112 or consent of Division Director.
Corequisites: FRE 281

This course provides a review and expansion of the essential skills of the French language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. When registering for this class, students will automatically be registered for FRE 281, French Lab 3. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

FRE 212   Intermediate French II   3   0   3

Prerequisites: FRE 211 or consent of Division Director.
Corequisites: None

This course is a continuation of FRE 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. When registering for this class, students will automatically be registered for FRE 282, French Lab 4. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

FRE 221   French Conversation   3   0   3

Prerequisites: Fre 212
Corequisites   None

This course provides an opportunity for intensive communications in spoken French. Emphasis is placed on vocabulary acquisition and interactive communication through the discussion of media materials and authentic texts. Upon completion, students should be able to discuss selected topics, express ideas and opinions clearly, and engage in formal and informal conversations.

FRE 281   French Lab 3   0   2   1

Prerequisites: FRE 182 or consent of Division Director.
Corequisites: FRE 211

This course provides an opportunity to enhance the review and expansion of the essential skills of the French language. Emphasis is placed on the study of authentic and representative literary and cultural texts through the use of supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.

FRE 282   French Lab 4   0   2   1

Prerequisites: FRE 281 or consent of Division Director.
Corequisites: FRE 282

This course provides an opportunity to enhance the review and expansion of the essential skills of the French language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.

GEO - Geography

	Lecture	Lab	Credit

GEO 111   World Regional Geography   3   0   3

Prerequisites:
Corequisites: None

This course introduces the regional concept which emphasizes the spatial association of people and their environment. Emphasis is placed on the physical, cultural, and economic systems that interact to produce the distinct regions of the earth. Upon completion, students should be able to describe variations in physical and cultural features of a region and demonstrate an understanding of their functional relationships. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

GEO 131   Physical Geography I   3   2   4

Prerequisites:
Corequisites: None

This course introduces the basic physical components that help shape the earth. Emphasis is placed on the geographic grid, cartography, weather, climate, biogeography, and soils. Upon completion, students should be able to identify these components and explain how they interact.

GEO 132   Physical Geography II   3   2   4

Prerequisites:
Corequisites: None

This course introduces the study of minerals, rocks, evolution of landforms, and consequences of landscape change. Emphasis is placed on mineral composition, fluvial processes, erosion and deposition, glaciers, and coastal processes. Upon completion, students should be able to identify these components and processes and to explain how they interact.

GEL - Geology

	Lecture	Lab	Credit

GEL 113   Historical Geology   3   2   4

Prerequisites: GEL 111, GEL 120 GEL, 1604 or equivalent
Corequisites: None

This course covers the geological history of the earth and its life forms. Emphasis is placed on the study of rock strata, fossil groups, and geological time. Upon completion, students should be able to identify major fossil groups and associated rock strata and approximate ages of geological formations. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

GEL 120 Physical Geology   3   2   4

Prerequisites
Corequisites: None

This course provides a study of the structure and composition of the earth's crust. Emphasis is placed on weathering, erosional and depositional processes, mountain building forces, rocks and minerals, and structural changes. Upon completion, students should be able to explain the structure, composition, and formation of the earth's crust. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

GEL 220 Marine Geology   3   2   4

Prerequisites: GEL 120
Corequisites: None

This course presents a detailed examination of coastal and sea floor geology. Emphasis is placed on coastal and sea floor landforms and processes that shape these features. Upon completion, students should be able to describe the origin and evolution of both coastal and sea floor landforms.

GER - German

	Lecture	Lab	Credit

GER 111 Elementary German I   3   0   3

Prerequisites: None
Corequisites: GER 181

This course introduces the fundamental elements of the German language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written German and demonstrate cultural awareness. When registering for this class, students will automatically be registered for GER 181, German Lab 1. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

GER 112 Elementary German II   3   0   3

Prerequisites: GER 111 or consent of Division Director.
Corequisites: GER 182

This course is a continuation of GER 111 focusing on the fundamental elements of the German language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written German and demonstrate further cultural awareness. When registering for this class, students will automatically be registered for GER 182, German Lab 2. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

GER 120 German for the Workplace   3   0   3

Prerequisites: None
Corequisites: None

This course offers applied German for the workplace to facilitate basic communication with people whose native language is German. Emphasis is placed on oral communication and career-specific vocabulary that targets business and industry. Upon completion, students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.

GER 181 German Lab 1   0   2   1

Prerequisites: None
Corequisites: GER 111

This course provides an opportunity to enhance acquisition of the fundamental elements of the German language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written German and demonstrate cultural awareness.

GER 182 German Lab 2   0   2   1

Prerequisites: GER 181 or consent of Division Director.
Corequisites: GER 112

This course provides an opportunity to enhance acquisition of the fundamental elements of the German language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written German and demonstrate cultural awareness.

GER 211 Intermediate German I   3   0   3

Prerequisites: GER 112 or consent of Division Director.
Corequisites: GER 281

This course provides a review and expansion of the essential skills of the German language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. When registering for this class, students will automatically be registered for GER 281, German Lab 3. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

GER 212 Intermediate German II   3   0   3

Prerequisites: GER 211 or consent of Division Director.
Corequisites: GER 282

This course provides a continuation of GER 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. When registering for this class, students will automatically be registered for GER 282, German Lab 4. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

GER 221 German Conversation   3   0   3

Prerequisites: GER 212
Corequisites: None

This course provides an opportunity for intensive communication in spoken German. Emphasis is placed on vocabulary acquisition and interactive communication through the discussion of media materials and authentic texts. Upon completion, students should be able to discuss selected topics, express ideas and opinions clearly, and engage in formal and informal conversations.

GER 281 German Lab 3   0   2   1

Prerequisites: GER 182 or consent of Division Director.
Corequisites: GER 211

This course provides an opportunity to enhance the review and expansion of the essential skills of the German language. Emphasis is placed on the study of authentic and representative

literary and cultural texts through the use of supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.

GER 282   German Lab 4   0   2   1

Prerequisites: GER 281 or consent of Division Director.
Corequisites: GER 212

This course provides an opportunity to enhance the review and expansion of the essential skills of the German language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.

Government

(See POL Political Science)

GRA - Graphic Arts

                                          Lecture Lab Credit

GRA 110   Graphic Arts Orientation   2   0   2

Prerequisites:
Corequisites: None

This course covers the history, development, and commercial applications of the major printing processes. Topics include offset lithography, screen printing, intaglio, relief printing, and emerging technologies. Upon completion, students should be able to demonstrate an understanding of the major characteristics, advantages, and disadvantages of each process.

GRA 121   Graphic Arts I   2   4   4

Prerequisites:
Corequisites: None

This course introduces terminology, tools and materials, procedures, and equipment used in graphic arts production. Topics include copy preparation and pre-press production relative to printing. Upon completion, students should be able to demonstrate an understanding of graphic arts production.

GRA 140   Graphic Arts Imaging   1   2   2

Prerequisites:
Corequisites: None

This course covers the use of photographic and electronic imaging techniques in the printing industry. Topics include exposure control and manipulation for a variety of process photography procedures and emerging electronic imaging techniques. Upon completion, students should be able to create line, special effect, and halftone images by both conventional and computer imaging methods.

GRA 151   Computer Graphics I   1   3   2

Prerequisites:
Corequisites: None

This course introduces the use of hardware and software for production and design in graphic arts. Topics include graphical user interface and current industry uses such as design, layout, typography, illustration, and imaging for production. Upon completion, students should be able to understand and use the computer as a fundamental design and production tool.

GRA 152   Computer Graphics II   1   3   2

Prerequisites: GRA 151
Corequisites: None

This course covers advanced design and layout concepts utilizing illustration, page layout, and imaging software in graphic arts. Emphasis is placed on enhancing and developing the skills that were introduced in GRA 151. Upon completion, students should be able to select and utilize appropriate software for design and layout solutions.

GRA 153   Computer Graphics III   1   3   2

Prerequisites: GRA 152
Corequisites: None

This course is a continuation of GRA 152. Emphasis is placed on advanced computer graphics hardware and software applications. Upon completion, students should be able to demonstrate competence in selection and utilization of appropriate software for specialized applications.

GRA 154   Computer Graphics IV   1   3   2

Prerequisites: GRA 153
Corequisites: None

This course is a continuation of GRA 153. Emphasis is placed on advanced techniques using a variety of hardware and software applications to produce complex projects. Upon completion, students should be able to use electronic document production tools.

**GRA 161   Computer Graphics
                Applications I**   0   3   1

Prerequisites:
Corequisites: GRA 151

This course is designed to provide additional hands-on training using computer software and hardware for production and design in graphic arts. Emphasis is placed on utilizing various computer software and hardware to produce simple graphic arts projects. Upon completion, students should be able to use the computer as a graphic arts production tool.

**GRA 162   Computer Graphics
                Applications II**   0   3   1

Prerequisites:
Corequisites: GRA 152

This course is designed to provide additional hands-on training using computer software and hardware for production and design in graphic arts. Emphasis is placed on utilizing various computer software and hardware to produce intermediate graphic arts projects. Upon completion, students should be able to effectively use the computer as a graphic arts production tool.

**GRA 163   Computer Graphics
                Applications III**   0   3   1

Prerequisites:
Corequisites: GRA 153

This course is designed to provide additional hands-on training using computer software and hardware for production and design in graphic arts. Emphasis is placed on utilizing various computer software and hardware to produce advanced graphic arts projects. Upon completion, students should be able to effectively use the computer as a graphic arts production tool.

**GRA 164   Computer Graphics
                Applications IV**   0   3   1

Prerequisites:
Corequisites: GRA 154

This course is designed to provide additional hands-on training using computer software and hardware for production and design in graphic arts. Emphasis is placed on utilizing various

computer software and hardware to produce professional quality graphic arts projects. Upon completion, students should be able to effectively and efficiently use the computer as a graphic arts production tool.

GRA 221   Graphic Arts II   2   4   4

Prerequisites: GRA 121 and GRA 151
Corequisites: None

This course is a continuation of GRA 121. Topics include multi-color image preparation, pre-press production, control of close/hairline register in image assembly and press operation, and post-press procedures. Upon completion, students should be able to demonstrate competence in all phases of graphic arts production.

GRA 222   Graphic Arts III   2   4   4

Prerequisites: GRA 221 and GRA 152
Corequisites: None

This course is a continuation of GRA 221. Topics include advanced electronic pre-press, press operation, and post-press procedures. Upon completion, students should be able to demonstrate competence in all phases of advanced graphic arts production.

GRA 230   Substrates and Ink   2   0   2

Prerequisites:
Corequisites: None

This course covers the manufacture, purchase, and use of printing substrates and inks in the graphic arts industry. Topics include the history, development, testing, purchasing, and use of ink, paper, and specialty substrates used in printing, as well as problems associated with each. Upon completion, students should be able to demonstrate an understanding of ink and substrate relationships in the design, planning, purchase, and production of a printed job.

GRA 245   Printing Sales / Service   3   0   3

Prerequisites:
Corequisites: None

This course covers the operation of a sales, marketing, and service program for a printing company or printing supplier. Topics include marketing, prospecting, telephone sales, customer service, order entry, closing the sale, and answering objections. Upon completion, students should be able to understand the operation of sales and service in printing and printing supply organizations.

GRA 252   Imaging Techniques   1   4   3

Prerequisites: GRA 151 or GRD 151
Corequisites: None

This course covers electronic imaging and transfer and display of digital images through various media. Topics include analysis of electronic imaging, including uses, medium, outcome, storage, and display hardware and software. Upon completion, students should be able to demonstrate an understanding of electronic imaging techniques and purposes and complete related assignments.

GRA 255   Image Manipulation I   1   3   2

Prerequisites: GRA 151 or GRD 151
Corequisites: None

This course covers applications associated with electronic image manipulation, including color correction, color separation, special effects, and image conversion. Topics include image-capturing hardware, image-processing software, and output options. Upon completion, students should be able to utilize

hardware and software to acquire, manipulate, and output images to satisfy design and production.

GRA 256   Image Manipulation II   1   3   2

Prerequisites: GRA 255
Corequisites: None

This course covers electronic color separation and its relationship to multi-color printing. Topics include color theory, separation, color matching, proofing, and output of process and spot color images. Upon completion, students should be able to use hardware and image processing software to produce color separations and proofs for various printing processes.

GRA 280   Printing Management   2   0   2

Prerequisites:
Corequisites: None

This course covers management and supervision in the printing industry. Topics include planning, organization, plant layout, scheduling, goal setting, business ethics, personnel policies, leadership and personal development, OSHA and environmental laws, and employment laws. Upon completion, students should be able to demonstrate an understanding of management and supervision techniques and policies used in a variety of printing departments and organizations.

GRD - Graphic Design

	Lecture	Lab	Credit

GRD 110   Typography I   2   2   3

Prerequisites: GRD 151
Corequisites: None

This course introduces the history and mechanics of type and its application to layout and design. Topics include typographic fundamentals, anatomy, measurements, composition, identification, and terminology. Upon completion, students should be able to demonstrate proficiency in design application, analysis, specification, and creation of typographic elements. Emphasis will be placed on an understanding of the structure of typography as a communications element as well as an image-making advertising/graphic design element.

GRD 111   Typography II   2   2   3

Prerequisites: GRD 110
Corequisites: None

This course is a continuation of GRD 110. Emphasis is placed on solving challenging typographic problems. Upon completion, students should be able to understand and demonstrate advanced typographic applications. *Emphasis is placed on a variety of solutions utilizing computer and related software for advanced typographic experimentation.*

GRD 113   History of Graphic Design   3   0   3

Prerequisites: ART 115
Corequisites: None

This course covers the history of graphic design and visual communications. Topics include major trends, developments, influences, and directions. Upon completion, students should be able to understand, recognize, and analyze important historical and world-wide cultural influences found in today's marketing of ideas and products. Emphasis will be placed on the relationship of past accomplishments to advertising and graphic design currently being produced.

GRD 131   Illustration I   1   3   2

Prerequisites: ART 131 or DES 125 or GRD 121
Corequisites: None
This course introduces the application of rendering techniques to create illustrations. Emphasis is placed on controlling various media, methods, surfaces, design problems, and the appropriate media selection process. Upon completion, students should be able to produce quality illustrations from conception through finished artwork. Emphasis is on traditional media with option(s) for computer experimentation.

GRD 141   Graphic Design I   2   4   4

Prerequisites:
Corequisites: None
This course introduces the conceptualization process used in visual problem solving. Emphasis is placed on learning the principles of design and on the manipulation and organization of elements. Upon completion, students should be able to apply design principles and visual elements to projects. *GRD 141 is for Graphic Arts students and will be taught only Fall semester.*

GRD 142   Graphic Design II   2   4   4

Prerequisites: ART 121, ART 131, GRD 151,
                GRD 110 or DES 135
Corequisites: None
This course covers the application of visual elements and design principles in advertising and graphic design. Topics include creation of various designs, such as logos, advertisements, posters, outdoor advertising, and publication design. Upon completion, students should be able to effectively apply design principles and visual elements to projects. Emphasis will be placed on an understanding of objective, target group and the development of the creative idea.

GRD 151   Computer Design Basics   1   4   3

Prerequisites: ART 121
Corequisites: None
This course covers designing and drawing with various types of software applications for advertising and graphic design. Emphasis is placed on creative and imaginative use of space, shapes, value, texture, color, and typography to provide effective solutions to advertising and graphic design problems. Upon completion, students should be able to use the computer as a creative tool. Emphasis will be on QuarkXPress with options to experiment in other software programs.

GRD 152   Computer Design Tech I   1   4   3

Prerequisites: GRD 151
Corequisites: None
This course covers complex design problems utilizing various design and drawing software applications. Topics include the expressive use of typography, image, and organization to communicate a message. Upon completion, students should be able to use appropriate computer software to professionally present their work. Emphasis will be placed on Macromedia Free-Hand as a drawing/illustration software program, as well as additional study of QuarkXPress.

GRD 160   Photo Fundamentals I   1   4   3

Prerequisites:
Corequisites: None
This course introduces basic camera operations, roll film processing, and photographic print production. Topics include contrast, depth-of-field, subject composition, enlarger operation, and density control. Upon completion, students should be able to produce photographic prints with acceptable density values and quality. Students will also demonstrate their abilities and

understanding of basic photofinishing methods, such as maintaining consistent borders and dry mounting.

GRD 241   Graphic Design III   2   4   4

Prerequisites: DES 136 or GRD 142
Corequisites: None
This course is an advanced exploration of various techniques and media for advertising and graphic design. Emphasis is placed on advanced concepts and solutions to complex and challenging graphic design problems. Upon completion, students should be able to demonstrate competence and professionalism in visual problem solving. Competence in analyzing and translating ideas and design solutions to clear, comprehensive visual layouts and mockups is to be stressed.

GRD 242   Graphic Design IV   2   4   4

Prerequisites: GRD 241
Corequisites: None
This course is a continuation of GRD 241. Emphasis is placed on using advanced media techniques, concepts, strategies, and professionalism in all aspects of design. Upon completion, students should be able to conceptualize, create, and produce designs for reproduction. Students should be able to design and produce projects which demonstrate understanding and experience through the printed stage or final production level.

GRD 263   Illustrative Imaging   1   4   3

Prerequisites: GRD 151 or GRA 151
Corequisites: None
This course covers the creative manipulation of images utilizing digital techniques of masking, layering, airbrushing, and painting. Topics include the aesthetic analysis of visual imagery as well as the legalities of manipulating images. Upon completion, students should be able to utilize software applications to creatively manipulate and illustratively build digital images which accomplish design objectives. Emphasis is placed on PhotoShop and other plug-in software used to enhance or creatively alter images for print/multi-media output.

GRD 265   Digital Print Production   1   4   3

Prerequisites: GRD 152 or GRA 152
Corequisites: None
This course covers preparation of digital files for output and reproduction. Emphasis is placed on output options, separations, color proofing, and cost and design considerations. Upon completion, students should be able to prepare files and select appropriate output methods for design solutions. Students will understand the various procedures and processes of printing.

GRD 280   Portfolio Design   2   4   4

Prerequisites: GRD 152, GRD 111, GRD 241, GRD 113
Corequisites: None
This course covers the organization and presentation of a design/advertising or graphic art portfolio and appropriate related materials. Emphasis is placed on development and evaluation of the portfolio, design and production of a résumé and self-promotional materials, and interview techniques. Upon completion, students should be able to prepare and professionally present an effective portfolio and related self-promotional materials.

GRD 282   Advertising Copywriting   1   2   2

Prerequisites: ENG 111
Corequisites: None
This course covers copywriting for print, electronic, and broadcast advertising and promotion. Topics include advertising strategies, proposals, headlines, slogans, and text copy for various types of advertising. Upon completion, students should be

able to write and articulate advertising proposals and understand the ethical and regulatory environment for advertising.

GRO · Gerontology

	Lecture	Lab	Clinic	Credit
GRO 120 Gerontology	3	0	0	3

Prerequisites: PSY 150
Corequisites: None
This course covers the psychological, social, and physical aspects of agin. Emphasis is placed on the factors that promote mental and physical well-being. Upon completion, students should be able to recognize the aging process and its psychological, social, and physical aspects.

GRO 220 Psy/Soc Aspects of Aging	3	0	0	3

Prerequisites: PSY 150
Corequisites: None
This course introduces the individual and social aspects of the aging process. Topics include psychological and social factors of aging, roles of older adults within families, work, and community; and adjustments to aging and retirement. *This course is a unique concentration requirement of the Gerontology concentration in the Human Services technology program.*

GRO 230 Health, Wellness, & Nutri.	3	2	0	4

Prerequisites:
Corequisites: None
This course covers basic concepts of health, wellness, and nutrition related to aging. Emphasis is placed on nutrition and diet, physical activity and exercise, and maintenance of well-being. Upon completion, students should able to identify health, wellness, and nutrition concepts related to aging. *This course is a unique concentration requirement of the Gerontology concentration in the Human Services Technology program.*

HEA · Health

	Lecture	Lab	Credit
HEA 110 Personal Health / Wellness	3	0	3

Prerequisites:
Corequisites: None
This course provides an introduction to basic personal health and wellness. Emphasis is placed on current health issues such as nutrition, mental health, and fitness. Upon completion, students should be able to demonstrate an understanding of the factors necessary to the maintenance of health and wellness.

HEA 112 First Aid and CPR	1	2	2

Prerequisites:
Corequisites: None
This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in providing emergency care for the sick and injured until medical help can be obtained. Students meeting the requirements of this course will receive certificates of completion.

HEA 120 Community Health	3	0	3

Prerequisitee:
Corequisites: None
This course provides information about contemporary community health and school hygienic issues. Topics include health education and current information about health trends. Upon completion, students should be able to recognize and devise strategies to prevent today's community health problems.

HEA 130 Health-Adult Sexuality	3	0	3

Prerequisites:
Corequisites: None
This course provides information about health issues related to adult human sexuality. Topics include basic reproductive anatomy, contraceptive methods, STDs, and related information. Upon completion, students should be able to identify various related community agencies and available resources relating to sexual issues.

HEA 140 Health-Child Sexuality	3	0	3

Prerequisites:
Corequisites: None
This course provides health-related information about the concepts of human sexuality in children. Topics include typical and atypical sexual behaviors and health issues relating to children's sexuality and relationships. Upon completion, students should be able to identify health issues relating to children's sexual development and behavior.

HEA 191 Selected Topics in Health Education	1	0	1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

HEA 192 Selected Topics in Health Education	2	0	2

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

HEA 193 Selected Topics in Health Education	3	0	3

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

HIT - Health Information Technology

		Lecture	Lab	Clinic	Credit

HIT 110 Health Information Orientation — 2 0 0 2

Prerequisites: None
Corequisites: None
This course introduces health information management and its role in health care delivery systems. Emphasis is placed on the role and responsibilities of health information professionals in a variety of settings. Upon completion, students should be able to demonstrate an understanding of health information management and health care organizations, professions, and trends.

HIT 112 Health Law and Ethics 3 0 0 3

Prerequisites: None
Corequisites: None
This course covers the impact of legal issues on health information management and provides an overview of the judicial system and legislative process. Topics include confidentiality, release of information, record retention, authentication, informed consent, subpoenaed information, security of computerized health information, liability, and legislative trends. Upon completion, students should be able to respond appropriately to requests for health information.

HIT 114 Record Systems / Standards — 2 3 0 3

Prerequisites: None
Corequisites: None
This course covers basic concepts and techniques for managing and maintaining health record systems. Topics include health record content, qualitative analysis, format, record control, storage, retention, forms design/control, indices and registers, and numbering and filing systems. Upon completion, students should be able to demonstrate an understanding of health record systems, including their maintenance and control.

HIT 122 Directed Practice I 0 0 3 1

Prerequisites: HIT 112, HIT 114
Corequisites: None
This course provides supervised clinical experience in health care settings. Emphasis is placed on practical application of curriculum concepts to the health care setting. Upon completion, students should be able to apply health information theory to health care facility practices.

HIT 124 Directed Practice II 1 0 3 2

Prerequisites: HIT 216, HIT 210
Corequisites: None
This course provides supervised clinical experience in health care settings. Emphasis is placed on practical application of curriculum concepts to the health care setting. Upon completion, students should be able to apply health information theory to health care facility practices.

HIT 210 Health Care Statistics 3 2 0 4

Prerequisites: MAT 115, HIT 114
Corequisites: None
This course covers maintenance, compilation, analysis, and presentation of health care statistics. Topics include basic statistical principles, morbidity and mortality, commonly computed hospital rates, uniform reporting requirements, and selection and construction of data displays. Upon completion, students should

be able to calculate morbidity, mortality, and commonly computed hospital rates; comply with information reporting requirements; and analyze/present statistical data.

HIT 212 Coding/Classification I 3 3 0 4

Prerequisites: BIO 169, MED 122, HIT 226
Corequisites: None
This course is the first of a two-course sequence which provides a foundation in coding and classification systems in a variety of health care settings. Emphasis is placed on ICD-9-CM coding conventions, rules, methodology and sequencing, data sets, documentation requirements, information indexing and retrieval, quality control, and coding resources. Upon completion, students should be able to apply coding principles to correctly assign ICD-9-CM.

HIT 214 Coding /Classification II 3 3 0 4

Prerequisites: HIT 212
Corequisites: None
This course is the second of a two-course sequence which continues the study of coding and classification systems in a variety of health care settings. Topics include classification and coding systems emphasizing ICD-9-CM, HCPCS/CPT-4, reimbursement/billing systems, encoders/groupers, case mix management, and coding's relationship to managed care. Upon completion, students should be able to apply coding principles to correctly assign ICD-9-CM and HCPCS/CPA-4 codes and apply systems to optimize reimbursement.

HIT 216 Quality Management 2 2 0 3

Prerequisites: HIT 114
Corequisites: None
This course introduces principles of quality improvement, utilization management, and risk management in health care. Topics include the continuous quality improvement philosophy, including tools, data analysis/application, and related committee functions; utilization management and risk management; and credentialing, accreditation and regulation. Upon completion, students should be able to apply performance improvement techniques, analyze/display data, apply level of care criteria, and participate in risk management activities.

HIT 218 Management 3 0 0 3

Prerequisites:
Corequisites: None
This course covers management and supervision principles as applied to health care settings. Emphasis is placed on problem-solving and communication skills related to planning, organization, directing, controlling, and budgeting. Upon completion, students should be able to apply management and supervision principles to health care settings.

HIT 220 Computers in Health Care 1 2 0 2

Prerequisites: CIS 110
Corequisites: None
This course covers basic computer system architecture, file structure, and design for health care settings. Topics include system analysis, design, security, and selection for a variety of hardware environments. Upon completion, students should be able to design, implement, evaluate, and maintain automated information systems in health

HIT 222   Directed Practice III   0   0   6   2

Prerequisites: HIT 122
Corequisites: None
This course provides supervised clinical experience in health care settings. Emphasis is placed on practical application of curriculum concepts to the health care setting. Upon completion, students should be able to apply health information theory to health care facility practices.

HIT 226   Principles of Disease   3   0   0   3

Prerequisites: BIO 166 or BIO 169
Corequisites: None
This course covers disease etiology and organ system involvement, including physical signs and symptoms, prognoses, and common complications and their management. Topics include basic microbiology, basic pharmacology, and principles of disease. Upon completion, students should be able to relate disease processes to etiology, physical signs and symptoms, prognosis, and common complications and their management.

HIT 280   Professional Issues   2   0   0   2

Prerequisites: HIT 112, HIT 212, HIT 210
Corequisites: HIT 214
This course provides a comprehensive discussion of topics common to the health information profession. Emphasis is placed on application of professional competencies, job search tools, and preparation for the certification examination. Upon completion, students should be able to demonstrate competency in entry-level domains, tasks, and subtasks for health information technology.

HET - Heavy Equipment and Transport Technology — Diesel Mechanics

	Lecture	Lab	Credit

HET 110   Diesel Engines   3   9   6

Prerequisites:
Corequisites: None
This course introduces theory, design, terminology, and operating adjustments for diesel engines. Emphasis is placed on safety, theory of operation, inspection, measuring, and rebuilding diesel engines according to factory specifications. Upon completion, students should be able to measure, diagnose problems, and repair diesel engines.

HET 112   Diesel Electrical Systems   3   6   5

Prerequisites:
Corequisites: None
This course introduces electrical theory and applications as they relate to diesel powered equipment. Topics include lighting, accessories, safety, starting, charging, instrumentation, and gauges. Upon completion, students should be able to follow schematics to identify, repair, and test electrical circuits and components.

HET 115   Electronic Engines   2   3   3

Prerequisites:
Corequisites: None
This course introduces the principles of electronically controlled diesel engines. Emphasis is placed on testing and adjusting diesel engines in accordance with manufacturers' specifications.

Upon completion, students should be able to diagnose, test, and calibrate electronically controlled diesel engines.

HET 116   Air Conditioning / Diesel Equipment   1   2   2

Prerequisites:
Corequisites: None
This course provides a study of the design, theory, and operation of heating and air conditioning systems in newer models of medium and heavy duty vehicles. Topics include component function, refrigerant recovery, and environmental regulations. Upon completion, students should be able to use proper techniques and equipment to diagnose and repair heating/air conditioning systems according to industry standards.

HET 118   Mechanical Orientation   2   0   2

Prerequisites:
Corequisites: None
This course introduces students to the use of hand and power tools. Emphasis is placed on the proper use of micrometers, dial indicators, and identification of the proper tools to be used in various repairs in the diesel field. Upon completion, students should be able to identify measuring and hand tool use and function.

HET 119   Mechanical Transmissions   2   2   3

Prerequisites:
Corequisites: None
This course introduces the operating principles of mechanical medium and heavy duty truck transmissions. Topics include multiple counter shafts, power take-offs, sliding idler clutches, and friction clutches. Upon completion, students should be able to diagnose, inspect, and repair mechanical transmissions.

HET 125   Preventive Maintenance   1   3   2

Prerequisites:
Corequisites: None
This course introduces preventive maintenance practices used on medium and heavy duty vehicles and rolling assemblies. Topics include preventive maintenance schedules, services, DOT rules and regulations, and roadability. Upon completion, students should be able to set up and follow a preventive maintenance schedule as directed by manufacturers.

HET 126   Prevent Maintenance Lab   0   3   1

Prerequisites:
Corequisites: DIE 125
This course provides a laboratory setting to enhance preventive maintenance practices used on medium and heavy duty vehicles and rolling assemblies. Emphasis is placed on practical experiences that enhance the topics presented in DIE 125. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in DIE 125.

HET 127   Shop Rules and Regulations   1   0   1

Prerequisites:
Corequisites: None
This course introduces safety, OSHA, and EPA general requirements used in the mobile equipment industry. Topics include fire extinguisher use, MSDS sheets, oil contamination, protective gear, and other related topics. Upon completion, students should be able to properly use fire extinguishers and demonstrate knowledge of applicable general safety, OSHA, and EPA regulations.

HET 128　Medium / Heavy Duty Tune-up　1　2　2

Prerequisites:
Corequisites: None
This course introduces tune-up and troubleshooting according to manufacturers' specifications. Topics include troubleshooting engine systems, tune-up procedures, and use and care of special test tools and equipment. Upon completion, students should be able to troubleshoot, diagnose, and repair engines and components using appropriate diagnostic equipment.

HET 134　Mechanical Fuel Injection　2　2　3

Prerequisites:
Corequisites: None
This course introduces the principles of mechanical fuel injection. Emphasis is placed on test equipment, component functions, and theory. Upon completion, students should be able to diagnose, service, and repair fuel systems and governors.

HET 230　Air Brakes　1　2　2

Prerequisites:
Corequisites: None
This course introduces the operation and design of air braking systems used on trucks. Topics include safety, governors, compressors, and supporting systems. Upon completion, students should be able to diagnose, disassemble, inspect, repair, and reassemble air brake systems.

HET 231　Medium / Heavy Duty Brake Systems　1　3　2

Prerequisites:
Corequisites: None
This course covers the theory and repair of braking systems used in medium and heavy duty vehicles. Topics include air, hydraulic, and ABS system diagnosis and repair. Upon completion, students should be able to troubleshoot, adjust, and repair braking systems on medium and heavy duty vehicles.

HET 233　Suspension and Steering　2　4　4

Prerequisites:
Corequisites: None
This course introduces the theory and principles of medium and heavy duty steering and suspension systems. Topics include wheel and tire problems, frame members, fifth wheel, bearings, and coupling systems. Upon completion, students should be able to troubleshoot, adjust, and repair suspension and steering components on medium and heavy duty vehicles.

HIS - History

| | Lecture | Lab | Credit |

HIS 111　World Civilizations I　3　0　3

Prerequisites:
Corequisites: None
This course introduces world history from the dawn of civilization to the early modern era. Topics include Eurasian, African, American, and Greco-Roman civilizations and Christian, Islamic and Byzantine cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in pre-modern world civilizations. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

HIS 112　World Civilizations II　3　0　3

Prerequisites:
Corequisites: None
This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

HIS 131　American History I　3　0　3

Prerequisites:
Corequisites: None
This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

HIS 132　American History II　3　0　3

Prerequisites:
Corequisites: None
This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

HIS 165　Twentieth-Century World　3　0　3

Prerequisites:
Corequisites: None
This course includes the major developments, issues, and ideas in twentieth-century world history. Emphasis is placed on contrasting political systems, the impact of science and technology, and the philosophical temperament of twentieth-century people. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the twentieth century.

HIS 193　Selected Topics in History　1-3　0-6　3

Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program of discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

HIS 221　African-American History　3　0　3

Prerequisites:
Corequisites: None
This course is a study of African-American from the Colonial period to the present. Topics include African origins, the slave trade, the Civil War, Reconstruction, the Jim Crow era, the civil rights movement, and contributions of African Americans. Upon completion, students should be able to analyze significant

political, socioeconomic, and cultural developments in the history of African Americans.

HIS 226   The Civil War   3   0   3

Prerequisites:
Corequisites: None
This course examines the social, political, economic, and ideological forces that led to the Civil War and Reconstruction. Topics include regional conflicts and sectionalism, dissolution of the Union, military campaigns, and the war's socioeconomic impact, aftermath, and consequences. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the United States during the era of the Civil War.

HIS 231   Recent American History   3   0   3

Prerequisites:
Corequisites: None
This course is a study of American society from the post-Depression era to the present. Topics include World War II, the Cold War, social unrest, the Vietnam War, the Great Society, and current political trends. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in recent America.

HIS 236   North Carolina History   3   0   3

Prerequisites:
Corequisites: None
This course is a study of geographical, political, economic, and social conditions existing in North Carolina from America's discovery to the present. Topics include native and immigrant backgrounds; colonial, ante-bellum, and Reconstruction periods; party politics; race relations; and the transition from an agrarian to an industrial economy. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in North Carolina.

Honors

(See SEM Honors/Seminars)

HOR - Horticulture Technology

Also see FLO Floriculture, COE Cooperative Education and TRF Turfgrass Management for additional course descriptions.

	Lecture	Lab	Credit

HOR 112 Landscape Design I   2   3   3

Prerequisites: HOR 160 or HOR 260 or
                 Division Permission
Corequisites: None
This course covers landscape principles and practices for residential and commercial sites. Emphasis is placed on drafting, site analysis, and common elements of good design, plant material selection, and proper plant utilization. Upon completion, students should be able to read, plan, and draft a landscape design.

HOR 114 Landscape Construction   2   2   3

Prerequisites:
Corequisites: None
This course introduces the design and fabrication of landscape structures/features. Emphasis is placed on safety, tool identification and use, material selection, construction techniques, and fabrication. Upon completion, students should be

able to design and construct common landscape structures/features.

HOR 116 Landscape Management I   2   2   3

Prerequisites:
Corequisites: None
This course covers information and skills necessary to analyze a property and develop a management schedule. Emphasis is placed on property measurement, plant condition, analysis of client needs, and plant culture needs. Upon completion, students should be able to analyze a property, develop management schedules, and implement practices based on client needs.

HOR 118 Equipment Operation and
**   Maintenance   1   3   2**

Prerequisites:
Corequisites: None
This course covers the proper operation and maintenance of selected equipment used in horticulture. Emphasis is placed on the maintenance, minor repairs, safety devices, and actual operation of selected equipment. Upon completion, students should be able to design a maintenance schedule, service equipment, and demonstrate safe operation of selected equipment.

HOR 124 Nursery Operations   2   3   3

Prerequisites:
Corequisites: None
This course covers nursery site and crop selection, cultural practices, and production and marketing methods. Topics include site considerations, water availability, equipment, irrigation, fertilization, containers, media, and pest control. Upon completion, students should be able to design and implement a nursery operation and grow and harvest nursery crops.

HOR 134 Greenhouse Operations   2   2   3

Prerequisites:
Corequisites: None
This course covers the principles and procedures involved in the operation and maintenance of greenhouse facilities. Emphasis is placed on the operation of greenhouse systems, including the environmental control, record keeping, scheduling, and production practices. Upon completion, students should be able to demonstrate the ability to operate greenhouse systems and facilities to produce greenhouse crops.

HOR 150 Introduction to Horticulture   2   0   2

Prerequisites:
Corequisites: None
This course covers the history, development, and basic techniques of horticulture. Topics include propagation techniques, planting procedures, watering and fertility, plant growth, pest and disease control, and garden design and history. Upon completion, students should be able to demonstrate an understanding of the basic principles of horticulture. Students will explore horticultural careers, organizations, and reference materials.

HOR 154 Introduction to Horticulture
**   Therapy   2   4   4**

Prerequisites:
Corequisites: None
This course introduces the concept of horticulture therapy and how it can be applied to improve human well-being. Emphasis is placed on developing a horticulture therapy program, planning activities, and adjusting activities based on the age, disability, or need of the individual. Upon completion, students should be able to develop project ideas, write lesson plans, and lead informal classes using horticulture therapy techniques.

HOR 160   Plant Materials I   2   2   3

   Prerequisites:
   Corequisites: None
   This course covers identification, culture, characteristics, and use of plants. Emphasis is placed on nomenclature, identification, growth requirements, cultural requirements, soil preferences, and landscape applications. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials.

HOR 162   Applied Plant Science   2   2   3

   Prerequisites:
   Corequisites: None
   This course introduces the basic concepts of botany as they apply to horticulture. Topics include nomenclature, physiology, morphology, and anatomy as they apply to plant culture. Upon completion, students should be able to apply the basic principles of botany to horticulture.

HOR 164   Horticulture Pest Management   2   2   3

   Prerequisites:
   Corequisites: None
   This course covers the identification and control of plant pests including insects, diseases, and weeds. Topics include pest identification and chemical regulations, safety, and pesticide application. Upon completion, students should be able to meet the requirements for North Carolina Commercial Pesticide Ground Applicators license. Students will apply the Integrated Pest Management Model in plant management

HOR 166   Soils & Fertilizers   2   2   3

   Prerequisites:
   Corequisites: None
   This course covers the physical and chemical properties of soils and soil fertility and management. Topics include soil formation, classification, physical and chemical properties, testing, fertilizer application, and other amendments. Upon completion, students should be able to analyze, evaluate, and properly amend soils/media.

HOR 168   Plant Propagation   2   2   3

   Prerequisites:
   Corequisites: None
   This course is a study of sexual and asexual reproduction of plants. Emphasis is placed on seed propagation, grafting, stem and root propagation, micro-propagation, and other propagation techniques. Upon completion, students should be able to successfully propagate ornamental plants.

**HOR 170   Horticulture Computer
            Application**   1   3   2

   Prerequisites: HOR 112 or Divisional permission
   Corequisites: None
   This course introduces computer programs as they apply to the horticulture industry. Emphasis is placed on applications of software for plant identification, design, and irrigation. Upon completion, students should be able to use computer programs in horticultural situations. Students will create a CAD drawing of a landscape.

HOR 213   Landscape Design II   2   2   3

   Prerequisites: HOR 112
   Corequisites: None
   This course covers residential and commercial landscape design, cost analysis, and installation. Emphasis is placed on job cost estimates, installation of the landscape design, and maintenance techniques. Upon completion, students should be able to

read landscape design blueprints, develop cost estimates, and implement the design. Students will expand their use of design styles, techniques, and materials and will improve their presentation skills.

HOR 215   Landscape Irrigation   2   2   3

   Prerequisites:
   Corequisites: None
   This course introduces basic irrigation design, layout, and installation. Topics include site analysis, components of irrigation systems, safety, types of irrigation systems, and installation techniques. Upon completion, students should be able to design and install basic landscape irrigation systems.

HOR 253   Horticulture Turfgrass   2   2   3

   Prerequisites: HOR 162 or HOR 166
   Corequisites: None
   This course covers information and skill development necessary to establish and manage landscape turfgrasses. Topics include grass identification, establishment, cultural requirements, application of control products, fertilization, and overseeding techniques. Upon completion, students should be able to analyze a landscape site and determine those cultural and physical activities needed to establish or manage a quality turf.

HOR 255   Interiorscapes   1   2   2

   Prerequisites:
   Corequisites: None
   This course covers plant selection, design, and management for interior settings. Topics include tropical plant identification, cultural requirements, insect and disease identification and control, and design and management requirements for interior plants. Upon completion, students should be able to design, install, and manage plants in interior settings.

HOR 257   Arboriculture Practices   1   3   2

   Prerequisites: HOR 160
   Corequisites: None
   This course covers the culture and maintenance of trees and shrubs. Topics include fertilization, pruning, approved climbing techniques, pest control, and equipment use and safety. Upon completion, students should be able to properly prune trees and shrubs and perform arboricultural practices.

HOR 260   Plant Materials II   2   2   3

   Prerequisites: HOR 160 or Division Permission
   Corequisites: None
   This course is a continuation of HOR 160 and covers additional plants. Emphasis is placed on reinforcement of skills and the introduction of additional plants. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials.

HOR 265   Advanced Plant Materials   1   2   2

   Prerequisites: HOR 260
   Corequisites: None
   This course covers important landscape plants which were not covered in HOR 160 and HOR 260. Emphasis is placed on identification, plant nomenclature, growth characteristics, cultural requirements, and landscape uses. Upon completion, students should be able to correctly select plants for specific landscape uses.

**HOR 273   Horticulture Management and
            Marketing**   3   0   3

   Prerequisites:
   Corequisites: None
   This course covers the steps involved in starting or manag-

ing a horticultural business. Topics include financing, regulations, market analysis, employer/employee relations, formulation of business plans, and operational procedures in a horticultural business. Upon completion, students should be able to assume ownership or management of a horticultural business.

HRM - Hotel and Restaurant Management

	Lecture	Lab	Credit

HRM 110 Introduction to Hospitality   2   0   2

Prerequisites:
Corequisites: None
This course covers the growth and progress of the hospitality industry. Topics include financing, hotels, restaurants, and clubs. Upon completion, students should be able to demonstrate an understanding of the background, context, and career opportunities that exist in the hospitality industry.

HRM 115 Housekeeping   3   0   3

Prerequisites:
Corequisites: None
This course covers the scope, responsibilities, communications, terminology, materials, and concerns specific to hotel housekeeping. Topics include management and supervision of housekeeping staff in the proper cleaning and sanitation of rooms and public areas, budgeting, purchasing, security, and inventory control. Upon completion, students should be able to understand and apply the principles of organization and management of a housekeeping department.

HRM 115A Housekeeping Lab   0   2   1

Prerequisites:
Corequisites: HRM 115
This course is a laboratory to accompany HRM 115. Emphasis is placed on the development of skills for the performance of housekeeping tasks. Upon completion, students should be able to demonstrate mastery of housekeeping skills.

HRM 120 Front Office Procedures   3   0   3

Prerequisites:
Corequisites: None
This course provides a systematic approach to hotel front office procedures. Topics include reservations, registration, guest satisfaction, occupancy and rate management, security, interdepartmental communications, and related guest services. Upon completion, students should be able to demonstrate a basic understanding of current front office operating systems, including efficient and courteous guest services. This is a computer-based class requiring basic computer competency.

HRM 120A Front Office Procedures Lab   0   2   1

Prerequisites:
Corequisites: HRM 120
This course is laboratory to accompany HRM 120. Emphasis is placed on practical computer applications of theory covered in HRM 120. Upon completion, students should be able to demonstrate a basic proficiency in computer-based, front office applications. This is a computer-based class requiring basic computer competency.

HRM 140 Hospitality Tourism Law   3   0   3

Prerequisites:
Corequisites: None
This course covers the rights and responsibilities that the law

grants to or imposes upon the hospitality industry. Topics include federal and state regulations, historical and current practices, safety and security, risk management, loss prevention, torts, and contracts. Upon completion, students should be able to demonstrate an understanding of the legal system to prevent or minimize organizational liability.

HRM 145 Hospitality Supervision   3   0   3

Prerequisites:
Corequisites: None
This course covers principles of supervision as they apply to the hospitality industry. Topics include recruitment, selection, orientation, training, evaluation, and leadership skills. Upon completion, students should be able to understand and apply basic supervisory skills unique to the hospitality and service industry.

HRM 210 Meetings and Conventions   3   0   3

Prerequisites:
Corequisites: None
This course introduces organization, arrangement, and operation of conventions, trade shows, professional meetings, and food functions. Emphasis is placed on the methods of marketing, selling, and servicing conventions and trade shows and the division of administrative responsibilities in their operation. Upon completion, students should be able to describe and apply the principles of management to multi-function, multi-day conferences and events.

HRM 220 Food and Beverage Controls   3   0   3

Prerequisites: MAT 115
Corequisites: None
This course introduces controls and accounting procedures used in the hospitality industry. Topics include analysis of financial statements, reports, and costs. Upon completion, students should be able to understand and apply food, beverage, and labor cost control systems.

HRM 220A Food and Beverage Controls Lab   0   2   1

Prerequisites:
Corequisites: HRM 220
This course is a laboratory to accompany HRM 220. Emphasis is placed on practical computer applications of food and beverage control procedures. Upon completion, students should be able to demonstrate proficiency in computer-based control applications.

HRM 225 Beverage Management   2   0   2

Prerequisites:
Corequisites: None
This course introduces the management of beverage operations in a hospitality operation. Topics include history, service, procurement, storage, and control of wines, fermented and distilled beverages, sparkling waters, coffees, and teas. Upon completion, students should be able to demonstrate knowledge of the beverages consumed in a hospitality operation.

HRM 230 Club and Resort Management   2   0   2

Prerequisites:
Corequisites: None
This course introduces specific principles of managing a hospitality operation in a resort or club setting. Topics include resort and club marketing, recreational and sport activity management, and retail management. Upon completion, students should be able to demonstrate an understanding of the specialized skills involved in resort and club management.

HRM 240 Hospitality Marketing   3   0   3

Prerequisites:
Corequisites: None
This course covers planning, organizing, directing, and analyzing the results of marketing programs in the hospitality industry. Emphasis is placed on market segmentation and analysis, product and image development, sales planning, advertising, public relations, and collateral materials. Upon completion, students should be able to prepare a marketing plan applicable to the hospitality industry.

**HRM 280 Hospitality Management
           Problems   3   0   3**

Prerequisites:
Corequisites: None
This course addresses current global, national, and local concerns and issues in the hospitality industry. Emphasis is placed on problem-solving skills using currently available resources. Upon completion, students should be able to apply hospitality management principles to real challenges facing industry managers.

HSE - Human Services Technology

	Lecture	Lab	Clinic	Credit

**HSE 110   Introduction to
             Human Services   2   2   0   3**

Prerequisites:
Corequisites: None
This course introduces the human services field, including the history, agencies, roles, and careers. Topics include personal/professional characteristics, diverse populations, community resources, disciplines in the field, systems, ethical standards, and major theoretical and treatment approaches. Upon completion, students should be able to identify the knowledge, skills, and roles of the human services worker.

HSE 112   Group Process I   1   2   0   2

Prerequisites: Enrollment in the HSE program
Corequisites: None
This course introduces interpersonal concepts and group dynamics. Emphasis is placed on self-awareness facilitated by experiential learning in small groups with analysis of personal experiences and the behavior of others. Upon completion, students should be able to show competence in identifying and explaining how people are influenced by their interactions in group settings.

**HSE 120   Interpersonal
             Relations   3   0   0   3**

Prerequisites:
Corequisites: None
This course introduces the interpersonal and communication skills used in helping relationships and professions. Topics include self-understanding; growth techniques; assertive, passive, and aggressive behaviors; and effective communications in the helping role. Upon completion, students should be able to demonstrate skills for effective communications in helping relationships which promote understanding of self, other people, and personal growth.

**HSE 123   Interviewing
             Techniques   2   2   0   3**

Prerequisites:
Corequisites: None
This course covers the purpose, structure, focus, and techniques employed in effective interviewing. Emphasis is placed on observing, attending, listening, responding, recording, and summarizing of personal histories with instructor supervision. Upon completion, students should be able to perform the basic interviewing skills needed to function in the helping relationship.

HSE 125   Counseling   2   2   0   3

Prerequisites: PSY 150
Corequisites: None
This course covers the major approaches to psychotherapy and counseling, including theory, characteristics, and techniques. Emphasis is placed on facilitation of self-exploration, problem solving, decision making, and personal growth. Upon completion, students should be able to understand various theories of counseling and demonstrate counseling techniques.

HSE 127   Conflict Resolution   2   2   0   3

Prerequisites:
Corequisites: None
This course introduces conflict resolution and mediation theory and practice. Emphasis is placed on achieving compromise and a win/win perception. Upon completion, students should be able to demonstrate competence in identifying seemingly dissimilar positions and facilitating agreement.

**HSE 155   Community Resources
             Management   2   0   0   2**

Prerequisites:
Corequisites: None
This course focuses on the working relationships between human services agencies and the community. Emphasis is placed on identification and observation of community resources which contribute to the achievement of the human services mission. Upon completion, students should be able to demonstrate knowledge about mobilizing of community resources, marshaling public support, and determining appropriate sources of funding.

HSE 210   Human Services Issues 2   0   0   2

Prerequisites: Successful completion of 12 SHC in the
                HSE program
Corequisites: None
This course covers current issues and trends in the field of human services. Emphasis is placed on contemporary topics with relevance to special issues in a multi-faceted field. Upon completion, students should be able to integrate the knowledge, skills, and experiences gained in classroom and clinical experiences with emerging trends in the field.

HSE 212   Group Process II   1   2   0   2

Prerequisites: HSE 112
Corequisites: None
This course is a continuation of the study of interpersonal concepts and group dynamics. Emphasis is placed on self-awareness facilitated by experiential learning in small groups with analysis of personal experiences and the behavior of others. Upon completion, students should be able to demonstrate their ability to communicate with others and facilitate communications between others.

HSE 220   Case Management   2   2   0   3

Prerequisites: HSE 110
Corequisites: None
This course covers the variety of tasks associated with professional case management. Topics include treatment planning, needs assessment, referral procedures, and follow-up and integration of services. Upon completion, students should be able to effectively manage the care of the whole person from initial contact through termination of services.

HSE 225   Crisis Intervention   3   0   0   3

Prerequisites:
Corequisites: None
This course introduces the basic theories and principles of crisis intervention. Emphasis is placed on identifying and demonstrating appropriate and differential techniques for intervening in various crisis situations. Upon completion, students should be able to assess crisis situations and respond appropriately.

**HSE 227   Children and Adolescence
                     in Crisis   3   0   0   3**

Prerequisites:
Corequisites: None
This course covers the crises affecting children and adolescents in contemporary society. Emphasis is placed on abuse and neglect, suicide and murder, dysfunctional family living, poverty, and violence. Upon completion, students should be able to identify and discuss intervention strategies and available services for the major contemporary crises affecting children and adolescents.

HSE 242   Family Systems   3   0   0   3

Prerequisites: PSY 150 or SOC 210
Corequisites: None
This course introduces the concepts of family structure as a system and includes the impact of contemporary society on the family. Topics include systems theory, family structure, blended families, divorce, adoption, and the elderly. Upon completion, students should be able to demonstrate an understanding of families as a system and the impact of change on family structure.

HSE 245   Stress Management   2   2   0   3

Prerequisites:
Corequisites: None
This course covers stressors and techniques for stress management. Topics include anger, assertiveness, breathing, change, coping skills, family, time management, meditation, guided imagery, and journalizing. Upon completion, students should be able to identify areas of stress and the skills and management techniques for dealing with stressors.

HSE 251   Activities Therapy   2   2   0   3

Prerequisites:
Corequisites: None
This course introduces skills and techniques used in recreation and leisure activities to enhance the lives of special populations. Emphasis is placed on music, art, and recreational therapy. Upon completion, students should be able to define, plan, and adapt recreational activities for selected groups and individuals.

HUM - Humanities

	Lecture	Lab	Credit

HUM 115 Critical Thinking   3   0   3

Prerequisites: ENG 101 or ENG 111
Corequisites: None
This course introduces the use of critical thinking skills in the context of human conflict. Emphasis is placed on information, problem solving, approaching cross-cultural perspectives, and resolving controversies and dilemmas. Upon completion, students should be able to demonstrate orally and in writing the use of critical thinking skills in the analysis of appropriate texts. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

HUM 130 Myth in Human Culture   3   0   3

Prerequisites: None
Corequisites: None
This course provides an in-depth study of myths and legends. Topics include the varied sources of myths and their influence on the individual and society within diverse cultural contexts. Upon completion, students should be able to demonstrate a general familiarity with myths and a broad-based understanding of the influence of myths and legends on modern culture. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

HUM 160 Introduction to Film   2   2   3

Prerequisites: ENG 111 or consent of Division Director
Corequisites: None
This course introduces the fundamental elements of film artistry and production. Topics include film styles, history, and production techniques, as well as the social values reflected in film art. Upon completion, students should be able to critically analyze the elements covered in relation to selected films. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*
Note: This course is a Writing Intensive Elective for UNCC.

HUM 211 Humanities I   3   0   3

Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None
This course introduces the humanities as a record in literature, music, art, history, religion, and philosophy of humankind's answers to the fundamental questions of existence. Emphasis is placed on the interconnectedness of various aspects of cultures from ancient through early modern times. Upon completion, students should be able to identify significant figures and cultural contributions of the periods studied. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

HUM 212 Humanities II   3   0   3

Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None
This course introduces the humanities as a record in literature, music, art, history, religion, and philosophy of humankind's answers to the fundamental questions of existence. Emphasis is placed on the interconnectedness of various aspects of cultures from early modern times to the present. Upon completion, students should be able to identify significant figures and cultural

contributions of the periods studied. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

HUM 220 Human Values and Meaning   3   0   3

Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None
This course presents some major dimensions of human experience as reflected in art, music, literature, philosophy, and history. Topics include the search for identity, the quest for knowledge, the need for love, the individual and society, and the meaning of life. Upon completion, students should be able to recognize interdisciplinary connections and distinguish between open and closed questions and between narrative and scientific models of understanding. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

HUM 230 Leadership Development   3   0   3

Prerequisites: ENG 111 or consent of Division Director
Corequisites: None
This course explores the theories and techniques of leadership and group process. Emphasis is placed on leadership styles, theories of group dynamics, and the moral and ethical responsibilities of leadership. Upon completion, students should be able to identify and analyze a personal philosophy and style of leadership and integrate these concepts in various practical situations.

HYD - Hydraulics

	Lecture	Lab	Credit

HYD 110 Hydraulics/Pneumatics I   2   3   3

Prerequisites:
Corequisites: None
This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics inclue standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, student should be able to understand the operation of a fluid power system, including design, application, and troubleshooting.

HYD 121 Hydraulics/Pneumatics II   1   3   2

Prerequisites:
Corequisites: None
This course is a continuation of HYD 110 and provides further investigation into fluid power systems. Topics include advanced system components, troubleshooting, and other related topics. Upon completion, students should be able to demonstrate an understanding of the installation, operation, and maintenance of fluid power components and systems.

HYD 210 Advanced Hydraulics   1   3   2

Prerequisites:HYD 110 or HYD 111
Corequisites: None
This course covers advanced hydraulic systems. Emphasis is placed on advanced hydraulic systems and components, troubleshooting, and other related topics. Upon completion, students should be able to demonstrate an understanding of the installation, operation, and maintenance of hydraulic components and systems.

ISC - Industrial Science

See MEC-Mechanical Engineering Technology, DDF-Design Drafting, DFT-Drafting, and ATR-Automation for Additional Courses

	Lecture	Lab	Credit

ISC 110   Workplace Safety   1   0   1

Prerequisites:
Corequisites: None
This course introduces the basic concepts of workplace safety. Topics include fire, ladders, lifting, lock-out/tag-out, personal protective devices, and other workplace safety issues related to OSHA compliance. Upon completion, students should be able to demonstrate an understanding of the components of a safe workplace.

ISC 112   Industrial Safety   2   0   2

Prerequisites:
Corequisites: None
This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA and environmental regulations. Upon completion, students should be able to demonstrate knowledge of a safe working environment.

ISC 115   Construction Safety   2   0   2

Prerequisites:
Corequisites: None
This course introduces the basic concepts of construction site safety. Topics include ladders, lifting, lock-out/tag-out, personal protective devices, scaffolds, and above/below ground work based on OSHA regulations. Upon completion, students should be able to demonstrate knowledge of applicable safety regulations and safely participate in construction projects.

ISC 121   Environmental Health & Safety   3   0   3

Prerequisites:
Corequisites: None
This course covers workplace environmental, health, and safety issues. Emphasis is placed on managing the implementation and enforcement of environmental health and safety regulations and on preventing accidents, injuries, and illnesses. Upon completion, students should be able to demonstrate an understanding of basic concepts of environmental, health, and safety issues.

ISC 131   Quality Management   3   0   3

Prerequisites:
Corequisites: None
This course provide a study and analysis of the aspects and implications of quality management that lead to customer satisfaction through continuous quality improvement. Topics include Total Quality Management, ISO 9000, organizing for quality, supplier/vendor relationships, and the role of leadership in quality management. Upon completion, students should be able to demonstrate an understanding of quality management concepts and techniques.

ISC 132   Manufacturing Quality Control   2   3   3

Prerequisites:
Corequisites: None
This course introduces quality concepts and techniques used in industry. Topics include elementary statistics and probability, process control, process capability, and quality improvement tools. Upon completion, students should be able to demonstrate an understanding of the concepts and principles of quality and apply them to the work environment.

**ISC 210   Operations and Production
                 Planning   3   0   3**
Prerequisites: Completion of Curriculum math requirement
Corequisites: None
This course includes the fundamentals of operations and production planning, forecasting, and scheduling. Topics include demand management, production planning and control, scheduling, and budgeting. Upon completion, students should be able to demonstrate an understanding of the concepts and techniques involved in operations and production planning. This course is a unique concentration requirement of the Operations Management concentration in the Business Administration program.

ISC 211   Production Planning   2   2   3
Prerequisites: MEC 111 and MEC 161
Corequisites: None
This course introduces concepts and techniques of production planning and control. Topics include forecasting, purchasing and inventory control, and production capacity/planning/control, including routing and scheduling. Upon completion, students should be able to apply these concepts and techniques to industrial problems dealing with production planning.

ISC 212   Metrology   1   2   2
Prerequisites:
Corequisites: None
This course covers the principles and techniques of modern practical metrology and inspection methods. Topics include precision, accuracy, standards, and calibration. Upon completion, students should be able to perform various roles within a metrology system.

**ISC 292   Selected Topics in Manufacturing
                 Engineering Technology   1   2   2**
Prerequisites: None
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

**ISC 293   Selected Topics in Manufacturing
                 Engineering Technology   2   2   3**
Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

Interior Design

(See DES Interior Design)

INT - International Business

		Lecture	Lab	Credit

INT 110   International Business   3   0   3
Prerequisites:
Corequisites: None
This course provides an overview of the environment, concepts, and basic differences involved in international business. Topics include forms of foreign involvement, international trade theory, governmental influences on trade and strategies, international organizations, multinational corporations, personnel management, and international marketing. Upon completion, students should be able to describe the foundation of international business.

INT 180   Travel Study Abroad   3   0   3
Prerequisites: Completion of 25 major hours in International
                     Business concentration
Corequisites: None
This course is designed to apply language and theoretical skills in an appropriate international business setting in a foreign country. Emphasis is placed on strengthening foreign language skills, performing with greater competence and confidence in the international workplace, and completing objectives outlined in training plan. Upon completion, students should be able to understand and utilize cultural patterns and business practices in the region of study.

INT 210   International Trade   3   0   3
Prerequisites: INT 110
Corequisites: None
This course covers international business trade practices and foreign market research. Emphasis is placed on current trends of US trade practices in foreign countries and how to engage in international trade and acquire foreign marketing information. Upon completion, students should be able to formulate an overall product policy for the international marketplace.

INT 220   International Economics   3   0   3
Prerequisites: INT 110 and ECO 151 or
                     ECO 251 or ECO 252
Corequisites: None
This course introduces the forces and criteria for the development of a new international economic order. Emphasis is placed on balance of payments, foreign exchange rates and their determination, International Monetary System, and arguments for and against free trade and protectionism. Upon completion, students should be able to describe economic principles and concepts of international trade. This course is a unique concentration requirement of the International Business concentration in the Business Administration program.

INT 230   International Law   3   0   3
Prerequisites: INT 110 and BUS 115
Corequisites: None
This course is designed to develop an understanding of the different theories on international law and their effect on international trade. Emphasis is placed on concepts of contracts, international transactions, major organizations in international trade, establishment of treaties, economic areas, and US laws affecting international trade. Upon completion, students should be able to apply theories and concepts to international trade and transactions. This course is a unique concentration requirement of the International Business concentration in the Business Administration program.

IPP - Interpreter Education

(See also ASL American Sign Language)

		Lecture	Lab	Credit

IPP 111   Introduction to Interpretation   2   0   2
Prerequisites:
Corequisites: None
This course introduces the field of interpreting, interpretation models, cognitive processes associated with interpretation, pro-

fessional ethical standards, employment opportunities, and working conditions. Topics include specialized jargon, code of ethics, interpreter assessments/qualifications, and protocol associated with various settings. Upon completion, students should be able to explain the rationale for placement of interpreters and apply ethical standards to a variety of working situations.

IPP 112   Comparative Cultures   4   0   4

Prerequisites: ASL 112
Corequisites: None

This course introduces observable attributes of deaf and non-deaf individuals and the social, political, educational, vocational, and historical issues faced by each. Topics include value systems of deaf and non-deaf individuals, enculturation stages, sociolinguistic continuum of language use within the deaf community, and cross-cultural management. Upon completion, students should be able to compare deaf and non-deaf cultures and discuss how prejudices are reflected in and impact on communication interactions.

IPP 130   Analytical Skills for Interpreters   1   4   3

Prerequisites:
Corequisites: None

This course is designed to improve cognitive processes associated with interpreting, listening, short-term memory, semantic equivalence, visual/auditory processing, thought organization, and logic. Emphasis is placed on developing skills necessary to generate equivalent messages between ASL and English. Upon completion, students should be able to consecutively interpret non-technical, interactive messages between ASL and English.

**IPP 150   Linguistics of American
Sign Language (ASL)   2   0   2**

Prerequisites: ASL 111
Corequisites: None

This course expands skills in generating appropriate ASL. Emphasis is placed on applying grammatical and syntactical features of ASL to a variety of technical and non-technical topics. Upon completion, students should be able to comprehend and respond with increasing fluency in ASL.

**IPP 151   American Sign Language
(ASL) / Numbers & Fingerspell   0   2   1**

Prerequisites: ASL 111
Corequisites: None

This course provides an in-depth study of number systems and fingerspelling techniques in ASL. Emphasis is placed on generating and receiving numbers and fingerspelling in context. Upon completion, students should be able to accurately express and receive numbers and fingerspelling.

**IPP 152   American Sign Language
(ASL) / English Translation   3   0   3**

Prerequisites: ASL 112
Corequisites: None

This course provides a study of the component parts of a cultural scheme and the manner in which ASL and English differ. Emphasis is placed on analyzing, discussing, and translating basic ASL and English texts. Upon completion, students should be able to discuss and apply techniques of cross-cultural communication and translation between deaf and non-deaf communities.

**IPP 153   Introduction to Discourse
Analysis   1   4   3**

Prerequisites: ASL 112
Corequisites: None

This course introduces discourse types and functions and specialized vocabulary and examines the specific nature of ASL discourse. Emphasis is placed on applying and practicing a model of analysis utilizing specialized vocabulary. Upon completion, students should be able to utilize specialized vocabulary and demonstrate ASL discourse features.

IPP 161   Consecutive Interpreting   2   6   5

Prerequisites: IPP 152
Corequisites: None

This course introduces the process of ASL/English consecutive interpreting in a variety of interview, meeting, and small conference settings. Emphasis is placed on generating equivalent messages between ASL and English. Upon completion, students should be able to discuss and apply the principles of the protocol of consecutive interpreting.

IPP 221   Simultaneous Interpreting I   2   6   5

Prerequisites: IPP 161
Corequisites: None

This course introduces simultaneous ASL/English interpreting through a variety of expository texts originating in group, meeting, and conference settings. Emphasis is placed on analyzing expository texts, identifying registers, and applying principles of the protocol of interpreting. Upon completion, students should be able to apply the appropriate linguistic and/or cultural adjustments required to generate equivalent messages.

IPP 222   Simultaneous Interpreting II   2   6   5

Prerequisites: IPP 221
Corequisites: None

This course provides additional experience in interpreting a variety of situations which occur during basic expository presentations. Emphasis is placed on interpreting texts which serve an informational, hortatory, and/or procedural function. Upon completion, students should be able to apply the appropriate linguistic and cultural adjustments necessary to achieve an equivalent register in the interpretation.

IPP 240   Ethical Standards & Practices   3   0   3

Prerequisites:
Corequisites: IPP 221

This course develops intellectual and ethical decision-making abilities and considers common ethical dilemmas that arise within the interpreting process. Topics include a model of ethical/intellectual development and the application of the model to interpreting practices. Upon completion, students should be able to discuss ethical resolution to various case studies and apply recognized principles of professional behavior to the interpreting process.

JOU - Journalism

Lecture   Lab   Credit

JOU 110   Introduction to Journalism   3   0   3

Prerequisites: ENG 111 or consent of Division Director
Corequisites: None

This course presents a study of journalistic news, feature, and sports writing. Emphasis is placed on basic news writing techniques and on related legal and ethical issues. Upon completion, students should be able to gather, write, and edit news, fea-

ture, and sports articles. *Note: This course is a Writing Intensive Elective for UNCC.*

LEX - Legal Education

| | Lecture | Lab | Credit |

LEX 110   Introduction to Paralegal Study   2   0   2

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course introduces the paralegal profession and the legal system. Topics include regulations and concepts, ethics, case analysis, legal reasoning, career opportunities, certification, professional organizations, and other related topics. Upon completion, students should be able to explain the role of the paralegal and identify the skills, knowledge, and ethics required of legal assistants.

LEX 120   Legal Research/Writing I   2   2   3

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course introduces the techniques of legal research and writing. Emphasis is placed on locating, analyzing, applying, and updating sources of law; effective legal writing, including proper citation; and the use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.

LEX 121   Legal Research/Writing II   2   2   3

Prerequisites: LEX 120; A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course covers advanced topics in legal research and writing. Topics include more complex legal issues and assignments involving preparation of legal memos, briefs, and other documents and the advanced use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.

LEX 130   Civil Injuries   2   0   2

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course covers traditional tort concepts and the evolving body of individual rights created by statute. Topics include intentional and non-intentional torts with emphasis on negligence, strict liability, civil rights, workplace and environmental liability, remedies, and damages. Upon completion, students should be able to recognize, explain, and evaluate elements of civil injuries and related defenses.

LEX 140   Civil Litigation I   3   0   3

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course introduces the structure of the legal system and the rules governing civil litigation. Emphasis is placed on jurisdiction and the state and federal rules of civil procedure and rules of evidence. Upon completion, students should be able to assist an attorney in the preparation of a civil case.

LEX 141   Civil Litigation II   2   2   3

Prerequisites: LEX 120 and LEX 140; A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course covers the paralegal's role in the civil litigation process. Topics include investigation, interviewing, pleadings, motions, discovery, and trial and appellate procedures. Upon completion, students should be able to assist an attorney in preparing, directing, and organizing documents for civil litigation.

LEX 150   Commercial Law   2   2   3

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course covers legally enforceable agreements, forms of organization, and selected portions of the Uniform Commercial Code. Topics include drafting and enforcement of contracts, leases, and related documents and selection and implementation of business organization forms, sales, and commercial papers. Upon completion, students should be able to apply the elements of a contract, prepare various business documents, and understand the role of commercial paper.

LEX 160   Criminal Law & Procedure   2   2   3

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course introduces substantive criminal law and procedural rights of the accused. Topics include elements of state/federal crimes, defenses, constitutional issues, pre-trial process, and other related topics. Upon completion, students should be able to explain elements of specific crimes and assist an attorney in preparing a criminal case.

LEX 170   Administrative Law   2   0   2

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prereq uisite will be waived for students holding a bachelor's degree.

Corequisites: None

This course covers the scope, authority, and regulatory operations of various federal, state, and local administrative agencies. Topics include social security, workers' compensation, unemployment, zoning, and other related topics. Upon completion, students should be able to research sources of administrative law, investigate, and assist in representation of clients before administrative agencies.

LEX 192   Selected Topics in Paralegal   2   0   3

Prerequisites: Enrollment in the program; A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

LEX 210   Real Property I   2   0   2

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.
Corequisites: None
This course introduces the study of real property law. Topics include the distinction between real and personal property, various estates, mechanics of conveyance and encumbrance, recordation, special proceedings, and other related topics. Upon completion, students should be able to identify estates, forms of deeds, requirements for recording, and procedures to enforce rights to real property.

LEX 211   Real Property II   1   4   3

Prerequisites: LEX 210; A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.
Corequisites: None
This course continues the study of real property law relating to title examination and preparation of closing documents. Topics include use of courthouse and other public records in title examination and preparation of documents required in real estate transactions and closings. Upon completion, students should be able to plot/draft a description, perform complete title examination, draft closing documents including title insurance forms, and prepare disbursement reconciliation.

LEX 220   Corporate Law   2   0   2

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.
Corequisites: None
This course covers the legal aspects of forming, operating, and maintaining a business. Emphasis is placed on the business corporation with additional coverage of sole proprietorships and partnerships. Upon completion, students should be able to draft basic partnership and corporate documents and file these documents as required.

LEX 240   Family Law   2   0   2

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.
Corequisites: None
This course covers laws governing domestic relations. Topics include marriage, separation, divorce, child custody, support, property division, adoption, domestic violence, and other related topics. Upon completion, students should be able to interview clients, gather information, and draft documents related to family law.

LEX 250   Wills, Estates, & Trusts   2   2   3

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.
Corequisites: None
This course covers various types of wills, trusts, probate, estate administration, and intestacy. Topics include types of wills and execution requirements, caveats and dissents, intestate succession, inventories and accountings, distribution and settlement, and other related topics. Upon completion, students should be able to draft simple wills, prepare estate forms, understand administration of estates including taxation, and explain terms regarding trusts.

LEX 260   Bankruptcy & Collections   2   0   2

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.
Corequisites: None
This course provides an overview of the laws of bankruptcy and the rights of creditors and debtors. Topics include bankruptcy procedures and estate management, attachment, claim and delivery, repossession, foreclosure, collection, garnishment, and post-judgment collection procedure. Upon completion, students should be able to prepare and file bankruptcy forms, collection letters, statutory liens, and collection of judgments.

LEX 280   Ethics & Professionalism   2   0   2

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.
Corequisites: None
This course reinforces legal ethics and the role of the paralegal in a professional work environment. Topics include a review of ethics, employment opportunities, and search techniques; paralegal certification; and other related topics. Upon completion, students should be able to understand the role of a professional paralegal and identify authority that can properly be delegated by an attorney.

LEX 285   Workers' Comp Law   2   0   2

Prerequisites: A minimum placement test score in reading is a prerequisite to all LEX courses. This prerequisite will be waived for students holding a bachelor's degree.
Corequisites: None
This course covers the process of initiating and handling workers' compensation claims. Emphasis is placed on reviewing and drafting relevant Industrial Commission forms. Upon completion, students should be able to interview clients, gather information, and draft documents related to workers' compensation claims.

MAC - Machining

	Lecture	Lab	Credit

MAC 111 Machining Technology I   2   12   6

Prerequisites:
Corequisites: None
This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling

machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.

MAC 111X Machining Technology I   1   6   3
Prerequisites:
Corequisites: None
This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling. *This is the first part of a course sequence and emphasizes engine lathe set-up and operation.*

MAC 111Y Machining Technology I   1   6   3
Prerequisites:
Corequisites: None
This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling. *This is the second part of a course sequence and emphasizes milling machine set-up and operation.*

MAC 112 Machining Technology II   2   12   6
Prerequisites: MAC 111
Corequisites: None
This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling.

MAC 112X Machining Technology II   1   6   3
Prerequisites: MAC 111
Corequisites: None
This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling. *This is the first part of a course sequence, and emphasizes layout and hand tool procedures.*

MAC 112Y Machining Technology II   1   6   3
Prerequisites: MAC 111
Corequisites: None
This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling. *This is the second*

part of a course sequence, and emphasizes layout and hand tool procedures.

MAC 113 Machining Technology III   2   12   6
Prerequisites: MAC 112
Corequisites: None
This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications.

MAC 113X Machining Technology III   1   6   3
Prerequisites: MAC 112
Corequisites: None
This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications. *This course emphasizes project building.*

MAC 113Y Machining Technology III   1   6   3
Prerequisites: MAC 112
Corequisites: None
This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications. *This course emphasizes project building.*

MAC 114 Introduction to Metrology   2   0   2
Prerequisites:
Corequisites: MAC111X or MAC 111Y
This course introduces the care and use of precision measuring instruments. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments. Upon completion, students should be able to demonstrate the correct use of measuring instruments.

MAC 121 Introduction to Computer Numerical Control   2   0   2
Prerequisites:
Corequisites: None
This course introduces the concepts and capabilities of computer numerical control machine tools. Topics include setup, operation, and basic applications. Upon completion, students should be able to explain operator safety, machine protection, data input, program preparation, and program storage.

MAC 122 Computer Numerical Control Turning   1   3   2
Prerequisites:
Corequisites: None
This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.

MAC 124 Computer Numerical Control Milling   1   3   2
Prerequisites:
Corequisites: None
This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

MAC 131 Blueprint Reading / Machine I   1   2   2

    Prerequisites:
    Corequisites: None
This course covers the basic principles of blueprint reading and sketching. Topics include multi-view drawings; interpretation of conventional lines; and dimensions, notes, and thread notations. Upon completion, students should be able to interpret basic drawings, visualize parts, and make pictorial sketches.

MAC 132 Blueprint Reading / Machine II   1   2   2

    Prerequisites: MAC 131
    Corequisites: None
This course introduces more complex industrial blueprints. Emphasis is placed on auxiliary views, section views, violations of true project, special views, applications of GD & T, and interpretation of complex parts. Upon completion, students should be able to read and interpret complex industrial blueprints.

MAC 151 Machining Calculations   1   2   2

    Prerequisites:
    Corequisites: None
This course introduces basic calculations as they relate to machining occupations. Emphasis is placed on basic calculations and their applications in the machine shop. Upon completion, students should be able to perform basic shop calculations.

**MAC 152 Advanced Machining
            Calculations**   1   2   2

    Prerequisites:
    Corequisites: None
This course combines mathematical functions with practical machine shop applications and problems. Emphasis is placed on gear ratios, lead screws, indexing problems, and their applications in the machine shop. Upon completion, students should be able to calculate solutions to machining problems.

**MAC 222 Advanced Computer Numerical
            Control Turning**   1   3   2

    Prerequisites: MAC 122
    Corequisites: None
This course covers advanced methods in setup and operation of CNC turning centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC turning centers.

**MAC 224 Advanced Computer Numerical
            Control Milling**   1   3   2

    Prerequisites: MAC 124
    Corequisites: None
This course covers advanced methods in setup and operation of CNC machining centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC machining centers.

**MAC 231 Computer Numerical Control
            Graphics Programming: Turning**   1   4   3

    Prerequisites: MAC 121
    Corequisites: None
This course introduces Computer Numerical Control graphics programming and concepts for turning center applications. Emphasis is placed on the interaction of menus to develop a shape file in a graphics CAM system and to develop tool path geometry and part geometry. Upon completion, students should be able to develop a job plan using CAM software, include machine selection, tool selection. operational sequence, speed,

feed, and cutting depth. Transfer machine code from CAM Graphics to the CNC turning center.

**MAC 232 Computer Numerical Control
            Graphics Programming: Milling**   1   4   3

    Prerequisites: MAC 121
    Corequisites: None
This course introduces Computer Numerical Control graphics programming and concepts for machining center applications. Emphasis is placed on developing a shape file in a graphics CAM system and transferring coded information from CAM graphics to the CNC milling center. Upon completion, students should be able to develop a complete job plan using CAM software to create a multi-axis CNC program.

MNT - Maintenance

                                   Lecture   Lab   Credit

MNT 110 Intro to Maintenance Procedures 1   3   2

    Prerequisites:
    Corequisites: None
This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to demonstrate knowledge of accepted maintenance procedures and practices according to current industry standards.

MNT 111 Maintenance Practices   1   3   2

    Prerequisites:MNT 110
    Corequisites: None
This course provides in-depth theory and practical applications relating to predictive and preventive maintenance programs. Emphasis is placed on equipment failure, maintenance management software, and techniques such as vibration and infrared analysis. Upon completion, students should be able to demonstrate an understanding of modern analytical and documentation methods.

MNT 150 Basic Building Maintenance   1   3   2

    Prerequisites:
    Corequisites: None
This course introduces the basic skills of building maintenance. Topics include basic carpentry and masonry skills including forming, framing, laying block to a line, repairing, and other related topics. Upon completion, students should be able to perform basic carpentry and masonry skills in a maintenance setting.

MNT 220 Rigging & Moving   1   3   2

    Prerequisites:
    Corequisites: None
This course covers the principles of safe rigging practices for handling, placing, and moving heavy machinery and equipment. Topics include safety estimation, positioning of equipment slings, rollers, jacks, levers, dollies, ropes, chains, padding, and other related topics. Upon completion, students should be able to relocate and set up equipment safely using accepted rigging practices.

MNT 230 Pumps & Pumping Systems   1   3   2

    Prerequisites:
    Corequisites: None
This course covers pump installation and maintenance and related valves and piping systems. Topics include various types of pump systems and their associated valves, piping require-

ments, and other related topics. Upon completion, students should be able to select and install pump and piping systems and demonstrate proper maintenance and troubleshooting procedures.

MNT 240 Industrial Equipment Troubleshoot   1   3   2

Prerequisites:ELC 112 or ELS 131
Corequisites: None

This course covers the various service procedures, tools, instruments, and equipment necessary to analyze and repair typical industrial equipment. Emphasis is placed on electro-mechanical and fluid power equipment troubleshooting and repair, including common techniques and procedures. Upon completion, students should be able to troubleshoot and repair industrial equipment.

MKT - Marketing and Retailing

	Lecture	Lab	Credit

MKT 120 Principles of Marketing   3   0   3

Prerequisites:
Corequisites: None

This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making.

MKT 121 Retailing   3   0   3

Prerequisites:
Corequisites: None

This course examines the role of retailing in the economy. Topics include the development of present retail structure, functions performed, effective operations, and managerial problems resulting from current economic and social trends. Upon completion, students should be able to demonstrate an understanding of the basic principles of retailing.

MKT 122 Visual Merchandising   3   0   3

Prerequisites:
Corequisites: None

This course introduces basic layout design and commercial display in retail and service organizations. Topics include an analysis of display as a visual merchandising medium and an examination of the principles and applications of display and design. Upon completion, students should be able to plan, build, and evaluate designs and displays. This course is a unique concentration requirement of the Marketing and Retailing concentration in the Business Administration program.

MKT 123 Fundamentals of Selling   3   0   3

Prerequisites:
Corequisites: None

This course is designed to emphasize the necessity of selling skills in a modern business environment. Emphasis is placed on sales techniques involved in various types of selling situations. Upon completion, students should be able to demonstrate an understanding of the techniques covered.

MKT 220 Advertising and Sales Promotion   3   0   3

Prerequisites:
Corequisites: None

This course covers the elements of advertising and sales promotion in the business environment. Topics include advertising and sales promotion appeals, selection of media, use of advertising and sales promotion as a marketing tool, and means of testing effectiveness. Upon completion, students should be able to demonstrate an understanding of the concepts covered through application.

MKT 221 Consumer Behavior   3   0   3

Prerequisites:
Corequisites: None

This course is designed to describe consumer behavior as applied to the exchange processes involved in acquiring, consuming, and disposing of goods and services. Topics include an analysis of basic and environmental determinants of consumer behavior with emphasis on the decision-making process. Upon completion, students should be able to analyze concepts related to the study of the individual consumer.

MKT 223 Customer Service   3   0   3

Prerequisites:
Corequisites: None

This course stresses the importance of customer relations in the business world. Emphasis is placed on learning how to respond to complex customer requirements and to efficiently handle stressful situations. Upon completion, students should be able to demonstrate the ability to handle customer relations.

MKT 224 International Marketing   3   0   3

Prerequisites:
Corequisites: None

This course covers the basic concepts of international marketing activity and theory. Topics include product promotion, placement, and pricing strategies in the international marketing environment. Upon completion, students should be able to demonstrate a basic understanding of the concepts covered.

MKT 225 Marketing Research   3   0   3

Prerequisites: MKT 120
Corequisites: None

This course provides information for decision making by providing guidance in developing, analyzing, and using data. Emphasis is placed on marketing research as a tool in decision making. Upon completion, students should be able to design and conduct a marketing research project and interpret the results. This course is a unique concentration requirement of the Marketing and Retailing concentration in the Business Administration program.

MKT 227 Marketing Applications   3   0   3

Prerequisites: MKT 120
Corequisites: None

This course extends the study of diverse marketing strategies. Emphasis is placed on case studies and small-group projects involving research or planning. Upon completion, students should be able to effectively participate in the formulation of a marketing strategy. This course is a unique concentration requirement of the Marketing and Retailing concentration in the Business Administration program.

MKT 228 Service Marketing　　　3　0　3

Prerequisites: None
Corequisites: None

This course is designed to define service marketing, demonstrate its importance, and note its special characteristics. Topics include basic building blocks of service marketing, distinctive aspects of services, and applications of service marketing mix. Upon completion, students should be able to demonstrate a basic understanding of the marketing mix as it applies to the service industry.

MKT 230 Public Relations　　　3　0　3

Prerequisites:
Corequisites: None

This course introduces public relations as it affects communications, strategic planning, and management of the organization. Topics include basic principles and functions of management that guide public relations activities as applied to businesses, services, institutions, and associations. Upon completion, students should be able to perform the communications, evaluation, planning, and research activities of the public relations professional.

MAT - Mathematics

Initial student placement in Mathematics courses is based on the college's placement testing policies and procedures.

　　　　　　　　　　　　　Lecture　Lab　Credit

MAT 101 Applied Mathematics I　　　2　2　3

Prerequisites: MAT 060, or placement test score, or permission of the Division Director
Corequisites: None

This course is a comprehensive review of arithmetic with basic algebra designed to meet the needs of certificate and diploma programs. Topics include arithmetic and geometric skills used in measurement, ratio and proportion, exponents and roots, applications of percent, linear equations, formulas, and statistics. Upon completion, students should be able to solve practical problems in their specific areas of study. This course is intended for certificate and diploma programs.

MAT 115 Mathematical Models　　　2　2　3

Prerequisites: MAT 070, or MAT 080, or placement test score, or permission of the Division Director.
Corequisites: None

This course develops the ability to utilize mathematical skills and technology to solve problems at a level found in non-mathematics-intensive programs. Topics include applications to percent, ratio and proportion, formulas, statistics, functional notation, linear functions and their groups, probability, sampling techniques, scatter plots, and modeling. Upon completion, students should be able to solve practical problems, reason and communicate with mathematics, and work confidently, collaboratively, and independently. This course is intended for AAS degree programs.

Not included in the AA, AFA, or AS General Education Core

MAT 121 Algebra/Trigonometry I　　　2　2　3

Prerequisites: MAT 080, or MAT 090, or MAT 140, or MAT 161, or placement test score, or permission of the Division Director
Corequisites: None

This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret

mathematical functions and formulas used in problem solving. Topics include simplification, evaluation, and solving of algebraic, radical, exponential, and logarithmic functions; descriptive statistics; right triangle trigonometry; and the use of technology. Upon completion, students should be able to solve problems and analyze and communicate results. *This course is intended for AAS degree programs.*

Note: Students cannot receive graduation nor transfer credit for both MAT 121 and MAT 140 or MAT 161 or MAT 171 or MAT 175.

MAT 122 Algebra/Trigonometry II　　　2　2　3

Prerequisites: MAT 121, or MAT 171, or permission of the Division Director
Corequisites: None

This course extends the concepts covered in MAT 121 to include additional topics in algebra, function analysis, trigonometry, and systems of equations. Topics include translation and scaling of functions, sine law, cosine law, complex numbers, vectors, statistics, and systems of equations. Upon completion, students should be able to demonstrate an understanding of the use of technology to solve problems and to analyze and communicate results. *This course is intended for AAS degree programs.*

Note: Students cannot receive graduation nor transfer credit for both MAT 122 and MAT 172 or MAT 175.

MAT 140 Survey of Mathematics　　　3　0　3

Prerequisites: MAT 080, or MAT 090, or placement test score, or permission of the Division Director
Corequisites: None

This course provides an introduction in a non-technical setting to selected topics in mathematics. Topics include, but are not limited to, sets, logic, probability, statistics, matrices, mathematical systems, geometry, topology, mathematics of finance, and modeling. Upon completion, students should be able to understand a variety of mathematical applications, think logically, and be able to work collaboratively and independently. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AA, AFA, and AGE degree programs.*

Note: Students cannot receive graduation nor transfer credit for both MAT 140 and MAT 161 or MAT 171 or MAT 175 or MAT 121.

MAT 155 Statistical Analysis　　　3　0　3

Prerequisites: MAT 122, MAT 140, or MAT 161, or MAT 171, or MAT 172, or MAT 175, or permission of the Division Director
Corequisites: MAT 155A

This course is an introduction to descriptive and inferential statistics. Topics include sampling, distributions, plotting data, central tendency, dispersion, Central Limits Theorem, confidence intervals, hypothesis testing, correlations, regressions, and multinomial experiments. Upon completion, students should be able to describe data and test inferences about populations using sample data. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for all associate degree programs.*

MAT 155A Statistical Analysis Lab　　　0　2　1

Corequisites: MAT 155

This course is a laboratory for MAT 155. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve

problems, apply critical thinking, work in teams, and communicate effectively.

MAT 161 College Algebra   3   0   3

Prerequisites: MAT 080, or MAT 090, or MAT 140, or placement test score, or permission of the Division Director

Corequisites: None

This course provides an integrated technological approach to algebraic topics used in problem solving. Emphasis is placed on equations and inequalities; polynomials, rational, exponential and logarithmic functions; and graphing and data analysis/modeling. Upon completion, students should be able to choose an appropriate model to fit a data set and use the model for analysis and prediction. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AA, AFA, and AGE degree programs.*

Note: Students cannot receive graduation nor transfer credit for both MAT 161 and MAT 171 or MAT 175 or MAT 140 or MAT 121.

MAT 167 Discrete Mathematics   3   0   3

Prerequisites: MAT 161, or MAT 171, or MAT 175, or permission of the Division Director

Corequisites: None

This course is a study of discrete mathematics with emphasis on applications. Topics include number systems, combinations/permutations, mathematical logic/proofs, sets/counting, Boolean algebra, mathematical induction, trees/graphs, and algorithms. *This course is intended for AAS degree programs. This course has been approved for transfer through the Comprehensive Articulation Agreement.*

MAT 171 Precalculus Algebra   3   0   3

Prerequisites: MAT 080, or MAT 090, or MAT 140, or MAT 161, or placement test score, or permission of the Division Director

Corequisites: MAT 171A

This is the first of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on equations and inequalities, functions (linear, polynomial, rational), systems of equations and inequalities, and parametric equations will include exponential and logarithmic functions. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and predictions. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AS degree programs.*

Note: Students cannot receive graduation nor transfer credit for both MAT 171 and MAT 161 or MAT 175 or MAT 140 or MAT 121.

MAT 171A Precalculus Algebra Lab   0   2   1

Prerequisites:

Corequisites: MAT 171

This course is a laboratory for MAT 171. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 172 Precalculus Trigonometry   3   0   3

Prerequisites: MAT 171, or permission of the Division Director

Corequisites: MAT 172A

This is the second of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on properties and applications of transcendental functions and their graphs, right and oblique triangle trigonometry, conic sections, vectors, and an introduction to calculus. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AS degree programs.*

Note: Students cannot receive graduation nor transfer credit for both MAT 172 and MAT 175 or MAT 122.

MAT 172A Precalculus Trigonometry Lab   0   2   1

Prerequisites:

Corequisites: MAT 172

This course is a laboratory for MAT 172. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 175 Precalculus   4   0   4

Prerequisites: MAT 080 (minimum grade of "A"), or MAT 161 (minimum grade of "B"), or placement test score, or permission of the Division Director

Corequisites: None

This course provides an intense study of the topics which are fundamental to the study of calculus. Emphasis is placed on functions and their graphs with special attention to polynomial, rational, exponential, logarithmic and trigonometric functions, and analytic trigonometry. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AS degree programs.*

Note: Students cannot receive graduation nor transfer credit for both MAT 175 and Mat 161 or MAT 171 or MAT 140 or MAT 121 or MAT 122 or MAT 172.

MAT 223 Applied Calculus   2   2   3

Prerequisites: MAT 122, or MAT 172, or MAT 175, or permission of the Division Director.

Corequisites: None

This course provides an introduction to the calculus concepts of differentiation and integration by way of application and is designed for engineering technology students. Topics include limits, slope, derivatives, related rates, areas, integrals, and applications. Upon completion, students should be able to demonstrate an understanding of the use of calculus and technology to solve problems and to analyze and communicate results. *This course is intended for AAS degree programs.*

Note: Students cannot receive graduation nor transfer credit for both MAT 223 and MAT 271 or MAT 263.

MAT 263   Brief Calculus   3   0   3

Prerequisites: MAT 161, or MAT 171, or MAT 175, or permission of the Division Director

Corequisites: None

This course introduces concepts of differentiation and integration and their applications to solving problems; the course is designed for students needing one semester of calculus. Topics include functions, graphing, differentiation, and integration with emphasis on applications drawn from business, economics, and biological and behavioral sciences. Upon completion, students should be able to demonstrate an understanding of the use of basic calculus and technology to solve problems and to analyze and communicate results. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AA, AFA, and AGE degree programs.*

Note: Students cannot receive graduation nor transfer credit for both MAT 263 and MAT 271 or MAT 223.

MAT 271   Calculus I   3   2   4

Prerequisites: MAT 172, or MAT 175, or permission of the Division Director

Corequisites: None

This course covers in depth the differential calculus portion of a three-course calculus sequence. Topics include limits, continuity, derivatives, and integrals of algebraic and transcendental functions of one variable, with applications. Upon completion, students should be able to apply differentiation and integration techniques to algebraic and transcendental functions. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AS degree programs.*

Note: Students cannot receive graduation credit for both MAT 271 and MAT 263 or MAT 223.

MAT 272   Calculus II   3   2   4

Prerequisites: MAT 271, or permission of the Division Director

Corequisites: None

This course provides a rigorous treatment of integration and is the second calculus course in a three-course sequence. Topics include applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to use integration and approximation techniques to solve application problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AS degree programs.*

MAT 273   Calculus III   3   2   4

Prerequisites: MAT 272, or permission of the Division Director

Corequisites: None

This course covers the calculus of several variables and is third calculus course in a three-course sequence. Topics include functions of several variables, partial derivatives, multiple integrals, solid analytical geometry, vector-valued functions, and line and surface integrals. Upon completion, students should be able to solve problems involving vectors and functions of several variables. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is intended for AS degree programs.*

MAT 280   Linear Algebra   3   0   3

Prerequisites: MAT 271, or permission of the Division Director

Corequisites: None

This course provides a study of linear algebra topics with emphasis on the development of both abstract concepts and applications. Topics include vectors, systems of equations, matrices, determinants, vector spaces, linear transformations in two or three dimensions, eigenvectors, eigenvalues, diagonalization and orthogonality. Upon completion, students should be able to demonstrate both an understanding of the theoretical concepts and appropriate use of linear algebra models to solve application problems.

MAT 285   Differential Equations   3   0   3

Prerequisites: MAT 272, or MAT 273, or permission of the Division Director

Corequisites: None

This course provides an introduction to ordinary differential equations with an emphasis on applications. Topics include first-order, linear, higher-order, and systems of differential equations; numerical methods; series solutions; eigenvalues and eigenvectors; Laplace transforms; and Fourier series. Upon completion, students should be able to use differential equations to model physical phenomena, solve the equations, and use the solutions to analyze the phenomena. *This course is intended for AS degree programs.*

MAT - Advancement Studies (MAT 050-080)

See Pre-College section of this catalog.

MEC - Mechanical Engineering Technology

Also see ISC Industrial Science, DDF Design Drafting, DFT Drafting, and ATR Automatizon for other courses.

	Lecture	Lab	Credit

MEC 111   Machine Processes I   2   3   3

Prerequisites:

Corequisites: None

This course introduces safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include safety, measuring tools, and the basic setup and operation of lathes, milling machines, drill presses, and saws. Upon completion, students should be able to manufacture a simple part to a specified tolerance.

**MEC 111X   Machine Processes 1
(Conventional)**   1   2   1.7

Prerequisites:

Corequisites: None

This course introduces safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include safety, measuring tools, and the basic setup and operation of lathes, milling machines, drill presses, and saws. Upon completion, students should be able to manufacture a simple part to a specified tolerance. *This is the first part of a course sequence and emphasizes conventional machine tool work.*

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College-Level Credit Course Descriptions

MEC 111Y Machine Processes 1 (CNC)   1   2   1.3

Prerequisites:MEC 111X
Corequisites: None

This course introduces safety, hand tools, machine process-es, measuring instruments, and the operation of machine shop equipment. Topics include safety, measuring tools, and the basic set-up and operation of lathes, milling machines, drill presses, and saws. Upon completion, students should be able to manu-facture a simple part to a specified tolerance. *This is the second part of a course sequence and emphasizes CNC programming and production.*

MEC 112 Mechanical Processes II   2   3   3

Prerequisites:MEC 111
Corequisites: None

This course covers advanced use of milling machines and lathes. Emphasis is placed on safety and compound setup of milling machines and lathes for manufacture of projects with a specified fit. Upon completion, students should be able to demonstrate proper procedures for manufacture of assembled parts.

MEC 128 CNC Machining Processes   2   4   4

Prerequisites:MAC 121
Corequisites: None

This course covers programming, setup, and operations of CNC turning, milling, and other CNC machines. Topics include programming formats, control functions, program editing, and part production and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning and milling centers.

MEC 161 Manufacturing Processes I   3   0   3

Prerequisites:
Corequisites: None

This course provides the fundamental principles of process-ing materials into usable forms for the customer. Emphasis is placed on material forming, removal, and value-added process-ing provided to the customer by the manufacturers. Upon com-pletion, students should be able to apply principles of traditional and non-traditional processing for metals and non-metals.

MEC 172 Introduction to Metallurgy   2   2   3

Prerequisites:
Corequisites: None

This course covers the production, properties, testing, classi-fication, microstructure, and heat treating effects of ferrous and non-ferrous metals. Topics include the iron-carbon phase dia-gram, ITT diagram, ANSI code, quenching, senescing, and other processes concerning metallurgical transformations. Upon completion, students should be able to understand the iron-car-bon phase diagram, ITT diagram, microstructure images, and other phenomena concerning the behavior of metals.

MEC 180 Engineering Materials   2   3   3

Prerequisites:ENG 114
Corequisites: None

This course covers the physical and mechanical properties of materials. Topics include testing, heat treating, ferrous and non-ferrous metals, plastics, composites, and material selection. Upon completion, students should be able to specify basic tests and properties and select appropriate materials on the basis of specific properties.

MEC 251 Statics   2   2   3

Prerequisites: PHY 131 or PHY 151
Corequisites: None

This course covers the concepts and principles of statics. Topics include systems of forces and moments on structures in two- and three-dimensions in equilibrium. Upon completion, students should be able to analyze forces and moments on struc-tures.

MEC 252 Strength of Materials   2   2   3

Prerequisites: MEC 251
Corequisites: None

This course covers the principles and concepts of stess analysis. Topics includes centroids, moments of inertia, shear/moment diagrams, and stress and strain. Upon comple-tion, students should be able to perform a stress and strain analy-sis on structural components.

MEC 265 Fluid Mechanics   2   2   3

Prerequisites: PHY 131, PHY 151, or PHY 110
Corequisites: None

This course covers the physical behavior of fluids and fluid systems. Topics include fluid statics and dynamics, laminar and turbulent flow, Bernoulli's Equation, components, applications, and other related topics. Upon completion, students should be able to apply fluid power principles to practical applications.

MEC 267 Thermal Systems   2   2   3

Prerequisites: PHY 131 or PHY 151
Corequisites: None

This course introduces the fundamental laws of thermody-namics. Topics include work and energy, open and closed sys-tems, and heat engines. Upon completion, students should be able to demonstrate a knowledge of the laws and principles that apply to thermal power.

MEC 270 Machine Design   3   3   4

Prerequisites: DFT 151, MEC 180, and MEC 252
Corequisites: None

This course covers the basic principles underlying design and selection of machine elements. Topics include stress analy-sis, selection of components, power transmission, and other design considerations. Upon completion, students should be able to identify and solve mechanical design problems by apply-ing basic engineering principles.

MEC 275 Engineering Mechanisms   2   2   3

Prerequisites: DFT 151 and PHY 131 or PHY 151
Corequisites: None

This course covers plane motion and devices used to gener-ate plane motion. Topics include analysis of displacement, velocity, acceleration, gears, cams and other mechanical sys-tems. Upon completion, students should be able to graphically and mathematically analyze a plane motion system.

MEC 292 Selected Topics in Mechanical
**   Engineering Technology**   1   2   2

Prerequisites: None
Corequisites: None

This course covers provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding on the specific area of study.

MEC 293 Selected Topics in Mechanical Engineering Technology 2 2 3

Prerequisites: None
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

MED - Medical Assisting

	Lecture	Lab	Clinic	Credit

MED 110 Orientation to Medical Assisting 1 0 0 1

Prerequisites:
Corequisites: None
This course covers the history of medicine and the role of the medical assistant in the health care setting. Emphasis is placed on professionalism, communication, attitude, behaviors, and duties in the medical environment. Upon completion, students should be able to project a positive attitude and promote the profession of medical assisting.

MED 112 Orientation to Clinic Setting I 0 0 3 1

Prerequisites: Enrollment in the Medical Assisting program
Corequisites:
This course provides an early opportunity to observe the medical setting. Emphsis is placed on medical assisting procedures including appointment scheduling, filing, greeting patients, telephone techniques, billing, collections, medical records, and related medical procedures. Upon completion, students should be able to identify administrative and clinical procedures in the medical environment.

MED 114 Professional Interaction in Health Care 1 0 0 1

Prerequisites: Division Approval
Corequisites: None
This course is designed to identify various patient behaviors encountered in the medical setting. Emphasis is placed on stressors related to illness, cultural influences, death and dying, and needs specific to patients. Upon completion, students should be able to utilize appropriate methods of verbal and nonverbal communication with empathy and impartiality.

MED 116 Introduction to A & P 3 2 0 4

Prerequisites: Division Approval
Corequisites: None
This course introduces basic anatomy and physiology. Emphasis is placed on the relationship between body structure and function and the procedures common to health care. Upon completion, students should be able to identify body system components and functions relating this knowledge to the delivery of health care.

MED 118 Medical Law and Ethics 2 0 0 2

Prerequisites: Division Approval
Corequisites: None
This course covers legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed consent, and bioethical issues. Emphasis is placed on legal terms, professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services. Upon completion, students should be able to meet the legal and ethical responsibilities of a multi-skilled health professional.

MED 120 Survey of Medical Terminology 2 0 0 2

Prerequisites: None
Corequisites: None

This course introduces the vocabulary abbreviations and sysbols used in the language of medicine. Emphasis is placed on building medical terms using perfixes, suffixes, and word roots. Upon completion, students should be able to pronounce, spell and define accepted medical terms.

MED 121 Medical Terminology I 3 0 0 3

Prerequisites:
Corequisites: None

This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

MED 122 Medical Terminology II 3 0 0 3

Prerequisites: MED 121
Corequisites: None
This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

MED 130 Administrative Office Procedures I 1 2 0 2

Prerequisites: Enrollment in the Medical Assisting program, keyboarding/computer skills
Corequisites: None
This course introduces medical office administrative procedures. Topics include appointment processing, written and oral communications, medical records, patient orientation, and safety. Upon completion, students should be able to perform basic administrative skills within the medical environment.

MED 131 Administrative Office Procedures II 1 2 0 2

Prerequisites: keyboarding/computer skills
Corequisites: MED 115, MED 121
This course provides medical office procedures in both economic and management skills. Topics include physical plant maintenance, equipment and supplies, liability coverage, medical economics, and introductory insurance procedures. Upon completion, students should be able to manage the economics of the medical office and supervise personnel.

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MED 134   Medical Transcription   2   2   0   3

Prerequisites: MED 116, MED 121, or BIO 163 or BIO 168/169, keyboarding/computer skills
Corequisites: None
This course provides the basic knowledge, understanding, and skills required to complete medical reports and transcribe medical dictation. Emphasis is placed on correct punctuation, capitalization, and spelling. Upon completion, students should be able to demonstrate competence in medical transcription.

**MED 138   Infection/Hazard
               Control   2   0   0   2**

Prerequisites:
Corequisites: None
This course introduces the student to infection and hazard control procedures necessary for the healthcare worker. Topics include introduction to microbiology, practical infection control, sterilization and monitoring, chemical disinfectants, aseptic technique, infectious diseases, OSHA standards, and applicable North Carolina laws. Upon completion, students should be able to understand infectious diseases, disease transmission, infection control procedures, biohazard management, OSHA standards, and applicable North Carolina laws. *(State ID Course Approval Number: Medical 96-M-94-1010)*

**MED 140   Exam Room
               Procedures I   3   4   0   5**

Prerequisites: Completion of first semester courses in the Medical Assisting program
Corequisites: MED 150
This course provides instruction in clinical examining room procedures. Topics include asepsis, infection control, assisting with exams and treatment, patient education, preparation and administration of medications, EKG, vital signs, and medical emergencies. Upon completion, students should be able to demonstrate competence in exam room procedures.

**MED 150   Laboratory
               Procedures I   3   4   0   5**

Prerequisites: Completion of first semester courses in the Medical Assisting program
Corequisites: MED 140
This course provides instruction in basic lab techniques used by the medical assistant. Topics include lab safety, quality control, collecting and processing specimens, performing selective tests, phlebotomy, screening and follow-up of test results, and OSHA/CLIA regulations. Upon completion, students should be able to perform basic lab tests/skills based on course topics.

**MED 232   Medical Insurance
               Coding   1   3   0   2**

Prerequisites: None
Corequisites: None
This course is designed to build upon the coding skills introduced in MED 131. Emphasis is placed on advanced diagnostic and procedural coding in the outpatient facility. Upon completion, students should be able to demonstrate proficiency in coding for reimbursement.

**MED 260   Medical Clinical
               Externship   0   0   15   5**

Prerequisites: Completion of first and second semester courses in the Medical Assisting program
Corequisites: MED 262 and MED 276
This course provides the opportunity to apply clinical, laboratory, and administrative skills in a medical facility. Emphasis is placed on enhancing competence in clinical and administrative skills necessary for comprehensive patient care and strengthening professional communications and interactions. Upon completion, students should be able to function as an entry-level health care professional.

MED 262   Clinical Perspectives   1   0   0   1

Prerequisites: Completion of first and second semester courses in the Medical Assisting program
Corequisites: MED 260 and MED 276
This course is designed to explore personal and occupational responsibilities of the practicing medical assistant. Emphasis is placed on problems encountered during externships and development of problem-solving skills. Upon completion, students should be able to demonstrate courteous and diplomatic behavior when solving problems in the medical facility.

MED 270   Symptomatology   2   2   0   3

Prerequisites: Completion of the Medical Assisting Diploma program or Division Approval
Corequisites: None
This course covers the study of disease symptoms and the appropriate actions taken by medical assistants in a medical facility in relation to these symptoms. Emphasis is placed on interviewing skills and appropriate triage, preparing patients for procedures, and screening test results. Upon completion, students should be able to recognize how certain symptoms relate to specific diseases, recognize emergency situations, and take appropriate actions.

MED 272   Drug Therapy   3   0   0   3

Prerequisites: Completion of the Medical Assisting Diploma program or Division approval
Corequisites: None
This course focuses on major drug groups, including their side effects, interactions, methods of administration, and proper documentation. Emphasis is placed on the theory of drug administration. Upon completion, students should be able to identify, spell, recognize side effects of, and document the most commonly used medications in a physician's office.

**MED 274   Diet Therapy /
               Nutrition   3   0   0   3**

Prerequisites: Completion of second semester courses in the Medical Assisting program or Division approval
Corequisites: None
This course introduces the basic principles of nutrition as they relate to health and disease. Topics include basic nutrients, physiology, dietary deficiencies, weight management, and therapeutic nutrition in wellness and disease. Upon completion, students should be able to interpret clinical and dietary data and provide patient counseling and education.

MED 276   Patient Education   1   2   0   2

Prerequisites: Completion of first and second semester courses in the Medical Assisting program
Corequisites: MED 260 and MED 262
This course is designed to provide communication skills, basic education principles, and knowledge of available community resources and to apply this knowledge to the clinical setting. Emphasis is placed on identifying appropriate community resources, developing patient education materials, and perfecting written and oral communication skills. Upon completion, students should be able to instruct, communicate effectively, and act as a liaison between the patient and community agencies.

MLT - Medical Laboratory Technology

		Lecture	Lab	Clinic	Credit

MLT 110 **Introduction to Medical Laboratory Technology** 2 3 0 3

Prerequisites:
Corequisites: None
This course introduces all aspects of the medical laboratory profession. Topics include health care/laboratory organization, professional ethics, basic laboratory techniques, safety, quality assurance, and specimen collection. Upon completion, students should be able to demonstrate a basic understanding of laboratory operations and be able to perform basic laboratory skills.

MLT 111 **Urinalysis and Body Fluids** 1 3 0 2

Prerequisites:
Corequisites: None
This course introduces the laboratory analysis of urine and body fluids. Topics include physical, chemical, and microscopic examination of the urine and body fluids. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting urinalysis and body fluid tests.

MLT 120 **Hematology / Hemostasis I** 3 3 0 4

Prerequisites:
Corequisites: None
This course introduces the theory and technology used in analyzing blood cells and the study of hemostasis. Topics include hematology, hemostasis, and related laboratory testing. Upon completion, students should be able to demonstrate theoretical comprehension of hematology/hemostasis, perform diagnostic techniques, and correlate laboratory findings with disorders.

MLT 125 **Immunohematology I** 4 3 0 5

Prerequisites:
Corequisites: None
This course introduces the immune system and response; basic concepts of antigens, antibodies, and their reactions; and applications in transfusion medicine and serodiagnostic testing. Emphasis is placed on immunological and blood banking techniques including concepts of cellular and humoral immunity and pretransfusion testing. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting routine immunological and blood bank procedures.

MLT 130 **Clinical Chemistry I** 3 3 0 4

Prerequisites:
Corequisites: None
This course introduces the quantitative analysis of blood and body fluids and their variations in health and disease. Topics include clinical biochemistry, methodologies, instrumentation, and quality control. Upon completion, students should be able to demonstrate theoretical comprehension of clinical chemistry, perform diagnostic techniques, and correlate laboratory findings with disorders.

MLT 140 **Introduction to Microbiology** 2 3 0 3

Prerequisites:
Corequisites: None
This course introduces basic techniques and safety procedures in clinical microbiology. Emphasis is placed on the morphology and identification of common pathogenic organisms, aseptic technique, staining techniques, and usage of common media. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting basic clinical microbiology procedures.

MLT 216 **Professional Issues** 0 2 0 1

Prerequisites:
Corequisites: None
This course surveys professional issues in preparation for career entry. Emphasis is placed on work readiness and theoretical concepts in microbiology, immunohematology, hematology, and clinical chemistry. Upon completion, students should be able to demonstrate competence in career entry-level areas and be prepared for the national certification examination.

MLT 220 **Hematology / Hemostasis II** 2 3 0 3

Prerequisites: MLT 120
Corequisites: None
This course covers the theories and techniques used in the advanced analysis of human blood cells and hemostasis. Emphasis is placed on the study of hematologic disorders, abnormal cell development and morphology, and related testing. Upon completion, students should be able to demonstrate a theoretical comprehension and application of abnormal hematology and normal and abnormal hemostasis.

MLT 230 **Clinical Chemistry II** 2 3 0 3

Prerequisites: MLT 130
Corequisites: None
This course is designed to supplement the biochemical and physiologic theory presented in MLT 130. Emphasis is placed on special chemistry techniques and methodologies. Upon completion, students should be able to recognize and differentiate technical and physiological causes of unexpected test results.

MLT 240 **Special Clinical Microbiology** 2 3 0 3

Prerequisites: MLT 140
Corequisites: None
This course is designed to introduce special techniques in clinical microbiology. Emphasis is placed on advanced areas in microbiology. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting specialized clinical microbiology procedures.

MLT 251 **Medical Laboratory Technology Practicum I** 0 0 3 1

Prerequisites:
Corequisites: None
This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.

MLT 267   Medical Laboratory Technology Practicum II   0   0   24   8

Prerequisites:
Corequisites: None
This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.

MLT 277   Medical Laboratory Technology Practicum III   0   0   24   8

Prerequisites:
Corequisites: None
This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.

Microcomputer Specialist

(See CIS/CSC Computer Information Systems)

MUS - Music

	Lecture	Lab	Credit

MUS 110   Music Appreciation   3   0   3

Prerequisites:
Corequisites: None
This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

MUS 111   Fundamentals of Music   3   0   3

Prerequisites:
Corequisites: None
This course is an introductory course for students with little or no music background. Emphasis is placed on music notation, rhythmic patterns, scales, key signatures, intervals, and chords. Upon completion, students should be able to demonstrate an understanding of the rudiments of music.

MUS 112   Introduction to Jazz   3   0   3

Prerequisites:
Corequisites: None
This course introduces the origins and musical components of jazz and the contributions of its major artists. Emphasis is placed on the development of discriminating listening habits, as well as the investigation of the styles and structural forms of the jazz idiom. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

MUS 121   Music Theory I   3   2   4

Prerequisites: MUS 111 or permission
Corequisites: None
This course provides an in-depth introduction to melody, rhythm, and harmony. Emphasis is placed on fundamental melodic, rhythmic, and harmonic analysis, introduction to part writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above.

MUS 122   Music Theory II   3   2   4

Prerequisites: MUS 121
Corequisites: None
This course is a continuation of studies begun in MUS 121. Emphasis is placed on advanced melodic, rhythmic, and harmonic analysis and continued studies in part-writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above.

MUS 123   Music Composition   0   2   1

Prerequisites: MUS 111 or MUS 121
Corequisites: None
This course provides a study of elementary forms and traditional approaches to the organization of melody, harmony, rhythm, etc. in musical composition. Emphasis is placed on using musical notation to create new musical works. Upon completion, students should be able to create short musical works using appropriate musical notation.

MUS 131   Chorus I   0   2   1

Prerequisites:
Corequisites: None
This course provides an opportunity to gain experience singing in a chorus. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.

MUS 132   Chorus II   0   2   1

Prerequisites: MUS 131
Corequisites: None
This course provides a continuation of studies begun in MUS 131. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.

MUS 133   Band I   0   2   1

Prerequisites:
Corequisites: None
This course provides an opportunity for those who play a band instrument to gain experience playing in an ensemble. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 134 Band II   0   2   1

Prerequisites: MUS 133
Corequisites: None
This course is a continuation of MUS 133. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 135 Jazz Ensemble I   0   2   1

Prerequisites:
Corequisites: None
This course provides an opportunity for those who play an appropriate instrument to gain experience playing in a jazz ensemble. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course provides the opportunity for development of jazz improvisational skills using chords related to 12-bar blues and simple songs using II-V-I progressions.

MUS 136 Jazz Ensemble II   0   2   1

Prerequisites: MUS 135
Corequisites: None
This course is a continuation of MUS 135. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course provides opportunities for learning to improvise over chord changes inherent in each jazz style studied.

MUS 137 Orchestra I   0   2   1

Prerequisites:
Corequisites: None
This course provides an opportunity for those who play an orchestral instrument to gain experience playing in an ensemble. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 138 Orchestra II   0   2   1

Prerequisites: MUS 137
Corequisites: None
This course is a continuation of MUS 137. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 141 Ensemble I   0   2   1

Prerequisites:
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should able to demonstrate skills needed to participate in ensemble playing leading performance.

MUS 141D Ensemble I   0   2   1

Prerequisites:
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 141D is Appalachian Dulcimer Ensemble I.

MUS 141E Ensemble I   0   2   1

Prerequisites:
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 141E is Early Music Consort I.

MUS 141F Ensemble I   0   2   1

Prerequisites:
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 141F is Folk Music "Jam" I.

MUS 141G Ensemble I   0   2   1

Prerequisites:
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 141G is Guitar Ensemble I.

MUS 141H Ensemble I   0   2   1

Prerequisites:
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 141H is Folk Harp Ensemble I.

MUS 141P Ensemble I   0   2   1

Prerequisites:
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 141P is Piano Ensemble I.

MUS 141R Ensemble I　　　　0　　2　　1

Prerequisites:
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 141R is Recorder Ensemble I.

MUS 142 Ensemble II　　　　0　　2　　1

Prerequisites: MUS 141
Corequisites: None
This course is a continuation of MUS 141. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should able to demonstrate skills needed to participate in ensemble playing leading performance.

MUS 142D Ensemble II　　　　0　　2　　1

Prerequisites: MUS 141D
Corequisites: None
This course is a continuation of MUS 141D. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 142D is Appalachian Dulcimer Ensemble II.

MUS 142E Ensemble II　　　　0　　2　　1

Prerequisites: MUS 141E
Corequisites: None
This course is a continuation of MUS 141E. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 142E is Early Music Consort II.

MUS 142F Ensemble II　　　　0　　2　　1

Prerequisites: MUS 141F
Corequisites: None
This course is a continuation of MUS 141F. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 142F is Folk Music "Jam" II.

MUS 142G Ensemble II　　　　0　　2　　1

Prerequisites: MUS 141G
Corequisites: None
This course is a continuation of MUS 141G. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 142G is Guitar Ensemble II.

MUS 142H Ensemble II　　　　0　　2　　1

Prerequisites: MUS 141H
Corequisites: None
This course is a continuation of MUS 141H. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon

completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 142H is Folk Harp Ensemble II.

MUS 142P Ensemble II　　　　0　　2　　1

Prerequisites: MUS 141P
Corequisites: None
This course is a continuation of MUS 141P. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 142P is Piano Ensemble II.

MUS 142R Ensemble II　　　　0　　2　　1

Prerequisites: MUS 141R
Corequisites: None
This course is a continuation of MUS 141R. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 142R is Recorder Ensemble II.

MUS 151B Class Music I　　　　0　　2　　1

Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151B is Banjo.

MUS 151D Class Music I　　　　0　　2　　1

Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151D is Appalachian Dulcimer.

MUS 151F Class Music I　　　　0　　2　　1

Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151F is Fiddle-Blue Grass and Old-Time.

MUS 151G Class Music I　　　　0　　2　　1

Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151G is Beginning Guitar in which focus is on

reading guitar music in first position, playing chords in first position, and transposition to selected keys.

MUS 151H Class Music I   0   2   1
Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151H is Folk Harp.

MUS 151J Class Music I   0   2   1
Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151J is Jazz Vocal which will include singing solos as well as scat singing and modern 4-part harmony.

MUS 151P Class Music I   0   2   1
Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151P is Beginning Piano in which students learn music reading skills required for simple two-hand piano compositions in the keys of C and G major.

MUS 151R Class Music I   0   2   1
Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151R is Beginning Recorder in which students will learn basic fingerings on the soprano or alto recorder.

MUS 151S Class Music I   0   2   1
Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151S is Sight singing which is designed to acquaint beginning students with the principles of solfége and pitch organization, rhythmic patterns, and basic harmonic progression.

MUS 151V Class Music I   0   2   1
Prerequisites:
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151V is Class Voice I for beginning singers and will focus on correct posture, breathing, support for the resonation of vowels, and proper diction.

MUS 152D Class Music II   0   2   1
Prerequisites: MUS 151D or Division Consent
Corequisites: None
This course is a continuation of MUS 151D Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 152D is level II of Appalachian Dulcimer.

MUS 152G Class Music II   0   2   1
Prerequisites: MUS 151G
Corequisites: None
This course is a continuation of MUS 151G. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 152G is Intermediate Guitar in which skills emphasized include improving ability to read a single line on the guitar, reading block and arpeggiated chords, and playing both a melody and arpeggiated accompaniment.

MUS 152H Class Music II   0   2   1
Prerequisites: MUS 151H or Division Consent
Corequisites: None
This course is a continuation of MUS 151H. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 152H is level II of Folk Harp.

MUS 152J Class Music II   0   2   1
Prerequisites: MUS 151G
Corequisites: None
This course is a continuation of MUS 151G. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 152J is Jazz Guitar which includes harmonization of tunes using standard jazz chords and explores chord/scale relationships through use of chord shapes.

MUS 152P Class Music II   0   2   1
Prerequisites: MUS 151P or Division Consent
Corequisites: None
This course is a continuation of MUS 151P. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 152P is level II of Beginning Piano in which piano compositions, scales, and chords studied will include the keys of C, G, and F major, and A and D minor.

MUS 152S Class Music II   0   2   1
Prerequisites: MUS 151P or Division Consent
Corequisites: None
This course is a continuation of MUS 151P. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 152S is sightreading at the piano and is designed to complement MUS 152P as well as upper levels of piano.

MUS 152V Class Music II   0   2   1
Prerequisites: MUS 151V
Corequisites: None
This course is a continuation of MUS 151V. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 152V is Class Voice II in which study of the International Phonetic alphabet will facilitate the performance of repertoire which will include art songs, arias, and other songs.

MUS 161B-W Applied Music I   1   2   2
Prerequisites: Audition
Corequisites: None

MUS 162B-W Applied Music II   1   2   2
Prerequisites: MUS 161B-W
Corequisites: None

MUS 261B-W Applied Music III   1   2   2
Prerequisites: MUS 162B-W
Corequisites: None

MUS 262B-W Applied Music IV   1   2   2
Prerequisites: MUS 261B-W
Corequisites: None
These courses provide individual instruction in the skills and techniques of the particular instrument or voice. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. The specific instrument is designated by a letter as given below.

B	Clarinet	M	Timpani
C	Flute	N	Saxophone
D	Viola	O	String Bass
E	French horn	P	Piano
F	Harp	Q	Trombone
G	Guitar	R	Trumpet
H	Harpsichord	S	Tuba
J	Cello	V	Voice
K	Organ	W	Violin
L	Percussion		

MUS 170 Business of Music   3   0   3
Prerequisites:
Corequisites: None
This course introduces the basic elements of the music business. Topics include copyright law, musical arrangements and abridgments, recording and songwriting contracts, agents and managers, performing rights organizations, and the musician's union. Upon completion, students should be able to demonstrate an understanding of the basic elements of the music business.

MUS 175 Recording Techniques I   2   0   2
Prerequisites:
Corequisites: None
This course introduces the recording studio from an artistic and operational point of view. Emphasis is placed on audio consoles, microphones, multi-track recorders, and echo chambers. Upon completion, students should be able to demonstrate understanding of operation and function of recording equipment and its relationship to musician, sound engineer, and producer.

MUS 176 Recording Techniques II   0   4   2
Prerequisites: MUS 175
Corequisites: None
This course continues the study and application of recording techniques begun in MUS 175. Emphasis is placed on multi-track recording and mix-down, microphone placement, and patch bay function. Upon completion, students should be able to create projects demonstrating proficiency in the skills and use of the equipment studied.

MUS 191 Selected Topics in Music   0-1   0-3   1
Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

MUS 192 Selected Topics in Music   0-2   0-6   2
Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

MUS 193 Selected Topics in Music   1-3   0-6   3
Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

MUS 196 Seminar in Music   0-1   0-3   1
Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

MUS 197 Seminar in Music   0-2   0-6   2
Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

MUS 198 Seminar in Music 1-3 0-6 3

Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

MUS 210 History of Rock Music 3 0 3

Prerequisites: MUS 110
Corequisites: None
This course is a survey of Rock music from the early 1950's to the present. Emphasis is placed on musical groups, soloists, and styles related to the evolution of this idiom and on related historical and social events. Upon completion, students should be able to identify specific styles and to explain the influence of selected performers within their respective eras.

MUS 213 Opera and Musical Theatre 3 0 3

Prerequisites:
Corequisites: None
This course covers the origins and development of opera and musical theatre from the works of Claudio Monteverdi to the present. Emphasis is placed on how the structure and components of opera and musicals effect dramaturgy through listening examples and analysis. Upon completion, students should be able to demonstrate analytical and listening skills in understanding both opera and the musical. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

MUS 214 Electronic Music I 1 2 2

Prerequisites: MUS 111
Corequisites: None
This course provides an opportunity to study and explore various electronic instruments and devices. Emphasis is placed on fundamental MIDI applications and implementation, features and application of sequences, sound modules, and digital keyboards. Upon completion, students should be able to demonstrate proficiency by creation of appropriate musical projects using the equipment and techniques covered.

MUS 215 Electronic Music II 1 2 2

Prerequisites: MUS 214
Corequisites: None
This course is a continuation of MUS 214. Emphasis is placed on advanced MIDI applications and implementation and continued work with sequencers, sound modules, and digital keyboards. Upon completion, students should be able to demonstrate proficiency by creation of appropriate musical projects using the equipment and techniques covered.

MUS 217 Elementary Conducting 1 2 2

Prerequisites: MUS 111
Corequisites: None
This course introduces the basic patterns and skills for conducting instrumental and vocal groups. Emphasis is placed on conducting beat patterns, expressive gestures, fermatas, accents, tempos, and rehearsal techniques. Upon completion, students should be able to demonstrate the above skills by conducting vocal and/or instrumental groups.

MUS 221 Music Theory III 3 2 4

Prerequisites: MUS 122
Corequisites: None
This course is a continuation of MUS 122. Emphasis is placed on altered and chromatic harmony, common practice era compositional techniques and forms, and continued studies in part-writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above.

MUS 222 Music Theory IV 3 2 4

Prerequisites: MUS 221
Corequisites: None
This course is a continuation of studies begun in MUS 221. Emphasis is placed on continued study of common practice era compositional techniques and forms, 20th century practices, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above.

MUS 231 Chorus III 0 2 1

Prerequisites: MUS 132
Corequisites: None
This course is a continuation of MUS 132. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.

MUS 232 Chorus IV 0 2 1

Prerequisites: MUS 231
Corequisites: None
This course is a continuation of MUS 231. Emphasis is placed on vocal techniques and the study of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.

MUS 233 Band III 0 2 1

Prerequisites: MUS 134
Corequisites: None
This course is a continuation of MUS 134. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 234 Band IV 0 2 1

Prerequisites: MUS 233
Corequisites: None
This course is a continuation of MUS 233. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 235 Jazz Ensemble III 0 2 1

Prerequisites: MUS 136
Corequisites: None
This course is a continuation of MUS 136. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed in ensemble playing leading to performance.

MUS 236   Jazz Ensemble IV   0   2   1

Prerequisites: MUS 235
Corequisites: None
This course is a continuation of MUS 235. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 237   Orchestra III   0   2   1

Prerequisites: MUS 138
Corequisites: None
This course is a continuation of MUS 138. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 238   Orchestra IV   0   2   1

Prerequisites: MUS 237
Corequisites: None
This course is a continuation of MUS 237. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 241   Ensemble III   0   2   1

Prerequisites: MUS 142
Corequisites: None
This course is a continuation of MUS 142. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should able to demonstrate skills needed to participate in ensemble playing leading performance.

MUS 241D   Ensemble III   0   2   1

Prerequisites: MUS 142D
Corequisites: None
This course is a continuation of MUS 142D. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241D is Appalachian Dulcimer Ensemble III.

MUS 241E   Ensemble III   0   2   1

Prerequisites: MUS 142E
Corequisites: None
This course is a continuation of MUS 142E. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241E is Early Music Consort III.

MUS 241F   Ensemble III   0   2   1

Prerequisites: MUS 142F
Corequisites: None
This course is a continuation of MUS 142F. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241F is Folk Music "Jam" III.

MUS 241G   Ensemble III   0   2   1

Prerequisites: MUS 142G
Corequisites: None
This course is a continuation of MUS 142G. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241G is Guitar Ensemble III.

MUS 241H   Ensemble III   0   2   1

Prerequisites: MUS 142H
Corequisites: None
This course is a continuation of MUS 142H. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241H is Folk Harp Ensemble III.

MUS 241P   Ensemble III   0   2   1

Prerequisites: MUS 142P
Corequisites: None
This course is a continuation of MUS 142P. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241P is Piano Ensemble III.

MUS 241R   Ensemble III   0   2   1

Prerequisites: MUS 142R
Corequisites: None
This course is a continuation of MUS 142R. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241R is Recorder Ensemble III.

MUS 242   Ensemble IV   0   2   1

Prerequisites: MUS 241
Corequisites: None
This course is a continuation of MUS 241. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should able to demonstrate skills needed to participate in ensemble playing leading performance.

MUS 242D   Ensemble IV   0   2   1

Prerequisites: MUS 241D
Corequisites: None
This course is a continuation of MUS 241D. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 242D is Appalachian Dulcimer Ensemble IV.

MUS 242E   Ensemble IV   0   2   1

Prerequisites: MUS 241E
Corequisites: None
This course is a continuation of MUS 241E. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 242E is Early Music Consort IV.

MUS 242F Ensemble IV   0   2   1

Prerequisites: MUS 241F
Corequisites: None
This course is a continuation of MUS 241F. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 242F is Folk Music "Jam" IV.

MUS 242G Ensemble IV   0   2   1

Prerequisites: MUS 241G
Corequisites: None
This course is a continuation of MUS 241G. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 242G is Guitar Ensemble IV.

MUS 242H Ensemble IV   0   2   1

Prerequisites: MUS 241H
Corequisites: None
This course is a continuation of MUS 241H. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 242H is Folk Harp Ensemble IV.

MUS 242P Ensemble IV   0   2   1

Prerequisites: MUS 241P
Corequisites: None
This course is a continuation of MUS 241P. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 242P is Piano Ensemble IV.

MUS 242R Ensemble IV   0   2   1

Prerequisites: MUS 241R
Corequisites: None
This course is a continuation of MUS 241R. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 242R is Recorder Ensemble IV.

MUS 251P Class Music III   0   2   1

Prerequisites: MUS 152P or Division Consent
Corequisites: None
This course is a continuation of MUS 152P. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 251P is the third semester (intermediate level) of Class Piano in an electronic piano laboratory setting.

MUS 252J Class Music IV   0   2   1

Prerequisites: MUS 251C
Corequisites: None
This course is a continuation of MUS 251C. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire

through performance. MUS 252J is Jazz Piano, an advanced sequel to MUS 251C (Chords), which explores the application of both simple and complex chord forms in reharmonizing standard popular tunes.

MUS 252P Class Music IV   0   2   1

Prerequisites: MUS 251P or Division Consent
Corequisites: None
This course is a continuation of MUS 251P. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 252P is the fourth semester of Class Piano in an electronic piano laboratory setting.

MUS 253 Big Band   0   2   1

Prerequisites:
Corequisites: None
This course includes the Big Band instrumentation of five saxes, four trumpets, four trombones, and four-piece rhythm section (bass, piano, drums, and guitar). Emphasis is placed on learning the repertoire specifically written for Big Band instrumentation. Upon completion, students should be able to demonstrate skills needed to participate in performance of Big Band music.

MUS 265 Piano Pedagogy   0   2   1

Prerequisites:
Corequisites: None
This course introduces the basic methods and materials of piano instruction. Emphasis is placed on basic teaching techniques and piano literature appropriate for various skill levels. Upon completion, students should be able to identify and utilize appropriate teaching methods and materials for various levels of piano instruction.

MUS 271 Music History I   3   0   3

Prerequisites: MUS 122 or Division Consent
Corequisites: None
This course is the first of a two-semester, in-depth study of music history. Emphasis is placed on the history and literature of music from Antiquity through the Baroque Period. Upon completion, students should be able to trace important musical developments and demonstrate an understanding of the composers' styles.

MUS 272 Music History II   3   0   3

Prerequisites: MUS 271
Corequisites: None
This course is the second of a two-semester, in-depth study of music history. Emphasis is placed on the history and literature of music from the Classical Period to the present. Upon completion, students should be able to trace important musical developments and demonstrate an understanding of the composers' styles.

MUS 280 Music for the Elementary Classroom   3   0   3

Prerequisites: MUS 110 or Division Consent
Corequisites: None
This course covers the skills necessary for teaching music in the elementary school. Emphasis is placed on integrating music activities which are suitable for all ages of elementary students, including theory, performance, and conducting, into classroom activities. Upon completion, students should be able to utilize a variety of music activities in the elementary school classroom.

MUS 291   Selected Topics in Music   0-1   0-3   1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

MUS 292   Selected Topics in Music   0-2   0-6   2

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

MUS 293   Selected Topics in Music   1-3   0-6   3

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

MUS 296   Seminar in Music   0-1   0-3   1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

MUS 297   Seminar in Music   0-2   0-6   2

Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

MUS 298   Seminar in Music   1-3   0-6   3

Prerequisites:
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

NUR - Nursing

	Lecture	Lab	Clinic	Credit

NUR 115   Fundamentals of Nursing   2   3   6   5

Prerequisites: Admission to the Associate
          Degree Nursing program
Corequisites: NUR 133, BIO 168, ENG 111
This course introduces concepts basic to beginning nursing practice. Emphasis is placed on the application of the nursing process to provide and manage care as a member of the discipline of nursing. Upon completion, students should be able to demonstrate beginning competence in caring for individuals with common alterations of health.

NUR 116   Nursing of Older Adults   2   3   3   4

Prerequisites:
Corequisites: None
This course provides an opportunity to utilize the provider of care and manager of care roles to meet nursing needs of older adults in a variety of settings. Emphasis is placed on the aging process as it applies to normal developmental changes and alterations in health commonly occurring in the older adult. Upon completion, students should be able to apply the nursing process in caring for the older adult.

NUR 117   Pharmacology   1   3   0   2

Prerequisites:
Corequisites: None
This course introduces information concerning sources, effects, legalities, and the safe use of medications as therapeutic agents. Emphasis is placed on nursing responsibility, accountability, and application of the nursing process regarding drug therapy. Upon completion, students should be able to compute dosages and administer medication safely.

NUR 125   Maternal-Child Nursing   5   3   6   8

Prerequisites: NUR 115 & NUR 133
Corequisites: BIO 169, MAT 140
This course introduces nursing concepts related to the delivery of nursing care for the expanding family. Emphasis is placed on utilizing the nursing process as a framework for managing/providing nursing care to individuals and families along the wellness-illness continuum. Upon completion, students should be able to utilize the nursing process to deliver nursing care to mothers, infants, children, and families.

NUR 133   Nursing Assessment   2   3   0   3

Prerequisites:
Corequisites: None
This course provides theory and application experience for performing nursing assessment of individuals across the life span. Emphasis is placed on interviewing and physical assessment techniques and documentation of findings appropriate for nursing. Upon completion, students should be able to complete a health history and perform a non invasive physical assessment.

NUR 135   Adult Nursing I   5   3   9   9

Prerequisites: NUR 185
Corequisites: COM 231 or COM 233, Humanities-Fine Arts
          course (3 credits) - from approved list.
This course introduces concepts related to the nursing care of individuals experiencing acute and chronic alterations in health. Emphasis is placed on utilizing the nursing process as a framework for providing and managing nursing care to individuals along the wellness-illness continuum. Upon completion, students should be able to apply the nursing process to individuals experiencing acute and chronic alterations in health.

NUR 185   Mental Health Nursing 3   0   6   5

Prerequisites: NUR 125
Corequisites: PSY 150, BIO 275, ENG 113
This course includes concepts related to the nursing care of individuals experiencing alterations in social and psychological functioning. Emphasis is placed on utilizing the nursing process

to provide and manage nursing care for individuals with common psychiatric disorders or mental health needs. Upon completion, students should be able to apply psychosocial theories in the nursing care of individuals with psychiatric/mental health needs.

NUR 188   Nursing in the Community   1   0   6   3

Prerequisites: NUR 115
Corequisites: None
This course is designed to introduces concepts and practices of community-based nursing care across the life span. Topics include home care history, agency regulation/standards, nurse's roles, the interdisciplinary team, and the application of nursing care to the community setting. Upon completion, students should be able to provide nursing care, manage nursing care, and function as a member of the discipline in home health care.

NUR 189   Nursing Transition   1   3   0   2

Prerequisites: Admission to the ADN Program
Corequisites: None
This course is designed to assist the licensed practical nurse in transition to the role of the associate degree nurse. Topics include the role of the registered nurse, nursing process, homeostasis, and validation of selected nursing skills and physical assessment. Upon completion, students should be able to articulate into the ADN program at the level of the generic student.

NUR 235   Adult Nursing II   4   3   15   10

Prerequisites: NUR 135
Corequisites: NUR 255, elective
This course provides expanded concepts related to nursing care for individuals experiencing common complex alterations in health. Emphasis is placed on the nurse's role as a member of a multidisciplinary team and as a manager of care for a group of individuals. Upon completion, students should be able to provide comprehensive nursing care for groups of individuals with common complex alterations in health.

NUR 255   Professional Issues   3   0   0   3

Prerequisites: NUR 135
Corequisites: NUR 235
This course explores basic concepts of practice in the management of patient care in a complex health care system. Emphasis is placed on professional, legal, ethical, and political issues and management concepts. Upon completion, students should be able to articulate professional and management concepts.

OMT - Operations Management Technology

	Lecture	Lab	Credit

OMT 110 Introduction to Operations Management   3   0   3

Prerequisites:
Corequisites: None
This course provides an overview of the operations management field. Topics include production and operations planning, materials management, environmental health and safety, and quality management. Upon completion, students should be able to demonstrate an understanding of the operations management functions.

OMT 112 Materials Management   3   0   3

Prerequisites:
Corequisites: None
This course covers the basic principles of materials management. Emphasis is placed on the planning, procurement, movement, and storage of materials. Upon completion, students should be able to demonstrate an understanding of the concepts and techniques related to materials management. This course is a unique concentration requirement of the Operations Management concentration in the Business Administration program.

OMT 253 Certified Reliability Engineer   3   0   3

Prerequisites: Completion of curriculum math requirement
Corequisites: None
This course is designed to assist in preparation for the ASQC Certified Reliability Engineer examination. Topics include design of experiments, mean time between failures, process and product reliability, and failure mode effects analysis. Upon completion, students should be able to design appropriate experiments to provide validity in data collection and apply analytical techniques to remedy process variance.

OMT 260 Issues in Operations Mgt.   3   0   3

Prerequisites: ISC 121, ISC 210, OMT 112, and ISC 130, ISC 131, ISC 132, or ISC 221
Corequisites: None
This course presents a variety of topics that highlight contemporary problems and issues related to operations management. Emphasis is placed on production and operations planning, environmental health and safety, materials management, and quality systems. Upon completion, students should be able to demonstrate the ability to make decisions and resolve problems in an operations management environment. This course is a unique concentration requirement of the Operations Management concentration in the Business Administration program.

OST - Office Systems Technology

	Lecture	Lab	Credit

OST 131 Keyboarding   1   2   2

Prerequisites:
Corequisites: None
This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system.

OST 132 Keyboard Skill Building   1   2   2

Prerequisites: OST 131
Corequisites: None
This course provides accuracy- and speed-building drills. Emphasis is placed on diagnostic tests to identify accuracy and speed deficiencies followed by corrective drills. Upon completion, students should be able to keyboard rhythmically with greater accuracy and speed. This course is specifically for the Data Entry Certificate.

OST 133 Advanced Keyboard Skill Building   1   2   2

Prerequisites: OST 132
Corequisites: None
This course is designed to increase speed and improve accuracy to meet employment tests and job requirements. Emphasis

is placed on individualized diagnostic and prescriptive drills. Upon completion, students should be able to keyboard with greater speed and accuracy as measured by five-minute timed writings and skill-development paragraphs. This course is specifically for the Data Entry Certificate.

OST 134 Text Entry and Formatting 3 2 4
Prerequisites: OST 131
Corequisites: None
This course is designed to provide the skills needed to increase speed, improve accuracy, and format documents. Topics include letters, memos, tables, and business reports. Upon completion, students should be able to produce mailable documents.

OST 135 Advanced Text Entry and Format 3 2 4
Prerequisites: OST 134
Corequisites: None
This course is designed to incorporate computer application skills in the generation of office documents. Emphasis is placed on the production of letters, manuscripts, business forms, tabulation, legal documents, and newsletters. Upon completion, students should be able to make independent decisions regarding planning, style, and method of presentation.

OST 136 Word Processing 1 2 2
Prerequisites:
Corequisites: None
This course introduces word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment.

OST 137 Office Software Applications 1 2 2
Prerequisites:
Corequisites: None
This course introduces the concepts and functions of software that meets the changing needs of the community. Emphasis is placed on the terminology and use of software through a handson approach. Upon completion, students should be able to use software in a business environment.

OST 148 Medical Coding Billing and Insurance 3 0 3
Prerequisites:
Corequisites: None
This course introduces CPT and ICD coding as they apply to medical insurance and billing. Emphasis is placed on accuracy in coding, forms preparation, and posting. Upon completion, students should be able to describe the steps of the total billing cycle and explain the importance of accuracy.

OST 149 Medical Legal Issues 2 0 2
Prerequisites:
Corequisites: None
This course introduces the complex legal, moral, and ethical issues involved in providing health-care services. Emphasis is placed on the legal requirements of medical practices; the relationship of physician, patient, and office personnel; professional liabilities; and medical practice liability. Upon completion, students should be able to demonstrate a working knowledge of current medical law and accepted ethical behavior.

OST 155 Legal Terminology 3 0 3
Prerequisites:
Corequisites: None
This course covers the terminology appropriate to the legal profession. Topics include legal research, court systems, litigation, civil and criminal law, probate, real and personal property, contracts and leases, domestic relations, equity, and corporations. Upon completion, students should be able to spell, pronounce, define, and demonstrate an understanding of the use of these legal terms.

OST 156 Legal Office Procedures 2 2 3
Prerequisites: OST 134
Corequisites: None
This course covers legal office functions involved in the operation of a law office. Emphasis is placed on procedures in the law office involving the court system, legal research, litigation, probate, and real estate, personal injury, criminal, and civil law. Upon completion, students should be able to demonstrate a high level of competence in performing legal office duties.

OST 164 Text Editing Applications 3 0 3
Prerequisites:
Corequisites: None
This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is placed on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to compose and edit text.

OST 184 Records Management 1 2 2
Prerequisites:
Corequisites: None
This course includes the creation, maintenance, protection, security, and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject, and numeric filing methods. Upon completion, students should be able to set up and maintain a records management system. A PC software packages is used to illustrate and practice database management operations.

OST 191 Selected Topics in Office Systems Technology 0-1 0-3 1
Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

OST 193 Selected Topics in Office Systems Technology 1-3 0-6 3
Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

OST 196 Seminar in Office Systems Technology 0-1 0-3 1
Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical

listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions. ADD

OST 198   Seminar in Office
Systems Technology   1-3   0-6   3
Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

OST 220   Notetaking   3   0   3
Prerequisites:
Corequisites: None
This course is designed to develop efficient notetaking skills through the use of the alphabet, abbreviations, and other shortcuts. Emphasis is placed on taking accurate notes and building vocabulary. Upon completion, students should able to take notes and transcribe from office dictation, class lectures, and meetings and record accurate telephone messages.

OST 223   Machine Transcription I   1   2   2
Prerequisites: OST 134, OST 136, and OST 164
Corequisites: None
This course covers the use of transcribing machines to produce mailable documents. Emphasis is placed on appropriate formatting, advanced text editing skills, and transcription techniques. Upon completion, students should be able to transcribe documents into mailable copy.

OST 233   Office Publications Design   2   2   3
Prerequisites: OST 136
Corequisites: None
This course provides entry-level skills in using software with desktop publishing capabilities. Topics include principles of page layout, desktop publishing terminology and applications, and legal and ethical considerations of software use. Upon completion, students should be able to design and produce professional business documents and publications. Hands-on experience using a software packages on a PC is provided to illustrate concepts and provide practice in developing documents and publications.

OST 236   Advanced Word/Information
Processing   2   2   3
Prerequisites: OST 136
Corequisites: None
This course develops proficiency in the utilization of advanced word/information processing functions. Topics include tables, graphics, macros, sorting, document assembly, merging, and newspaper and brochure columns. Upon completion, students should be able to produce a variety of complex business documents.

OST 241   Medical Office Transcription I   1   2   2
Prerequisites: MED 121 or OST 141
Corequisites: None
This course introduces machine transcription techniques as applied to medical documents. Emphasis is placed on accurate transcription, proofreading, and use of reference materials as well as vocabulary building. Upon completion, students should be able to prepare accurate and usable transcripts of voice recordings in the covered specialties.

OST 243   Medical Office Simulation   2   2   3
Prerequisites: OST 131 and OST 148
Corequisites: None
This course introduces medical systems used to process information in the automated office. Topics include traditional and electronic information resources, storing and retrieving information, and the billing cycle. Upon completion, students should be able to use the computer accurately to schedule, bill, update, and make corrections.

OST 251   Legal Document Formatting   2   2   3
Prerequisites: OST 134, OST 155, and OST 136
Corequisites: None
This course is designed to provide experience in the preparation of various types of legal forms and documents. Emphasis is placed on formatting and keying legal forms, documents, and correspondence. Upon completion, students should be able to produce these documents with accuracy and speed.

OST 252   Legal Transcription I   1   2   2
Prerequisites: OST 155
Corequisites: OST 251
This course provides experience in using the transcriber to produce legal correspondence, forms, and documents with mailable accuracy from recorded tapes. Emphasis is placed on operating the transcriber, developing listening skills to translate the audio into hard copy, and producing mailable documents. Upon completion, students should be able to transcribe legal forms and documents with reasonable accuracy.

OST 253   Legal Transcription II   1   2   2
Prerequisites: OST 252
Corequisites: None
This course is designed to improve transcription skills to produce more complex legal correspondence, forms, and documents with mailable accuracy from recorded tapes. Emphasis is placed on developing speed and accuracy in the production of correspondence, documents, and forms. Upon completion, students should be able to transcribe legal forms and documents with greater accuracy and speed.

OST 284   Emerging Technologies   2   0   2
Prerequisites:
Corequisites: None
This course provides opportunities to explore emerging technologies. Emphasis is placed on identifying, researching, and presenting current technological topics for class consideration and discussion. Upon completion, students should be able to understand the importance of keeping abreast of technological changes that affect the office professional.

OST 289   Office Systems Management   2   2   3
Prerequisites: OST 134, OST 136, and OST 164
Corequisites: None
This course provides a capstone course for the office professional. Topics include administrative office procedures, imaging, communication techniques, ergonomics, and equipment utilization. Upon completion, students should be able to function proficiently in a changing office environment.

PHI - Philosophy

	Lecture	Lab	Credit

PHI 220 Western Philosophy I   3   0   3
Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None
This course covers Western intellectual and philosophic thought from the early Greeks through the medievalists. Emphasis is placed on such figures as the pre-Socratics, Plato, Aristotle, Epicurus, Epictetus, Augustine, Suarez, Anselm, and Aquinas. Upon completion, students should be able to trace the development of leading ideas regarding reality, knowledge, reason, and faith. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

PHI 221 Western Philosophy II   3   0   3
Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None
This course covers Western intellectual and philosophic thought from post-medievalists through recent thinkers. Emphasis is placed on such figures as Descartes, Spinoza, Leibnitz, Locke, Berkeley, Hume, Kant, Hegel, Marx, Mill, and representatives of pragmatism, logical positivism, and existentialism. Upon completion, students should be able to trace the development of leading ideas concerning knowledge, reality, science, society, and the limits of reason. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

PHI 230 Introduction to Logic   3   0   3
Prerequisites: ENG 111 or consent of Division Director.
Corequisites: None
This course introduces basic concepts and techniques for distinguishing between good and bad reasoning. Emphasis is placed on deduction, induction, validity, soundness, syllogisms, truth functions, predicate logic, analogical inference, common fallacies, and scientific methods. Upon completion, students should be able to analyze arguments, distinguish between deductive and inductive arguments, test validity, and appraise inductive reasoning.

PED - Physical Education

	Lecture	Lab	Credit

PED 110 Fit and Well for Life   1   2   2
Prerequisites:
Corequisites: None
This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests.

PED 111 Physical Fitness I   0   3   1
Prerequisites:
Corequisites: None
This course provides an individualized approach to physical fitness utilizing the five major components. Emphasis is placed on the scientific basis for setting up and engaging in personalized physical fitness programs. Upon completion, students should be able to set up and implement an individualized physical fitness program.

PED 112 Physical Fitness II   0   3   1
Prerequisites: PED 111 or Equivalent
Corequisites: None
This course is an intermediate-level fitness class. Topics include specific exercises contributing to fitness and the role exercise plays in developing body systems. Upon completion, students should be able to implement and evaluate an individualized physical fitness program.

PED 113 Aerobics I   0   3   1
Prerequisites:
Corequisites: None
This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength, and flexibility and on safety precautions. Upon completion, students should be able to select and implement a rhythmic aerobic exercise program.

PED 114 Aerobics II   0   3   1
Prerequisites: PED 113 or Equivalent
Corequisites: None
This course provides a continuation of a program of cardiovascular fitness involving rhythmic exercise. Emphasis is placed on a wide variety of aerobic activities which include cardiovascular efficiency, strength, and flexibility. Upon completion, students should be able to participate in and design a rhythmic aerobic exercise routine.

PED 115 Step Aerobics I   0   3   1
Prerequisites:
Corequisites: None
This course introduces the fundamentals of step aerobics. Emphasis is placed on basic stepping up and down on an adjustable platform; cardiovascular fitness; and upper body, floor, and abdominal exercises. Upon completion students should be able to participate in basic step aerobics.

PED 117 Weight Training I   0   3   1
Prerequisites:
Corequisites: None
This course introduces the basics of weight training. Emphasis is placed on developing muscular strength, muscular endurance, and muscle tone. Upon completion, students should be able to establish and implement a personal weight training program.

PED 118 Weight Training II   0   3   1
Prerequisites: PED 117 or Equivalent
Corequisites: None
This course covers advanced levels of weight training. Emphasis is placed on meeting individual training goals and addressing weight training needs and interests. Upon completion, students should be able to establish and implement an individualized advanced weight training program.

PED 122 Yoga I   0   2   1
Prerequisites:
Corequisites: None
This course introduces the basic discipline of yoga. Topics include proper breathing, relaxation techniques, and correct body positions. Upon completion, students should be able to demonstrate the procedures of yoga.

PED 123 Yoga II   0   2   1

Prerequisites: PED 122 or Equivalent
Corequisites: None
This course introduces more detailed aspects of the discipline of yoga. Topics include breathing and physical postures, relaxation, and mental concentration. Upon completion, students should be able to demonstrate advanced procedures of yoga.

PED 125   Self-Defense-Beginning   0   2   1
Prerequisites:
Corequisites: None
This course is designed to aid students in developing rudimentary skills in self-defense. Emphasis is placed on stances, blocks, punches, and kicks as well as non-physical means of self-defense. Upon completion, students should be able to demonstrate basic self-defense techniques of a physical and non-physical nature. Various styles of martial arts may be introduced in this course.

PED 126   Self-Defense-Intermediate   0   2   1
Prerequisites: PED 125 or Equivalent
Corequisites: None
This course is designed to aid students in building on the techniques and skills developed in PED 125. Emphasis is placed on the appropriate psychological and physiological responses to various encounters. Upon completion, students should be able to demonstrate intermediate skills in self-defense stances, blocks, punches, and kick combinations. Students will develop greater skills in a specific martial art.

PED 128   Golf-Beginning   0   2   1
Prerequisites:
Corequisites: None
This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting, and the rules and etiquette of golf. Upon completion, students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf. Extra fees are charged for this course and students must provide their own clubs.

PED 129   Golf-Intermediate   0   2   1
Prerequisites: PED 128 or Equivalent
Corequisites: None
This course covers the more advanced phases of golf. Emphasis is placed on refining the fundamental skills and learning more advanced phases of the games such as club selection, trouble shots, and course management. Upon completion, students should be able demonstrate the knowledge and ability to play a recreational round of golf. Extra fees are charged for this course and students must provide their own clubs.

PED 130   Tennis-Beginning   0   2   1
Prerequisites:
Corequisites: None
This course emphasizes the fundamentals of tennis. Topics include basic strokes, rules, etiquette, and court play. Upon completion, students should be able to play recreational tennis. Students must provide their own racket and balls.

PED 131   Tennis-Intermediate   0   2   1
Prerequisites: PED 130 or Equivalent
Corequisites: None
This course emphasizes the refinement of playing skills. Topics include continuing the development of fundamentals, learning advanced serves, and strokes and pace and strategies in singles and doubles play. Upon completion, students should be able to play competitive tennis. Students must provide their own racket and balls.

PED 135   Fencing-Beginning   0   2   1
Prerequisites:
Corequisites: None
This course introduces the fundamentals of fencing. Emphasis is placed on grip, stance, and establishment of good techniques for attacks and parries. Upon completion, students should be able to perform elementary foil techniques and demonstrate the basic skills of fencing.

PED 136   Fencing-Intermediate   0   2   1
Prerequisites: PED 135 or Equivalent
Corequisites: None
This course covers more advanced fencing techniques. Topics include advanced foil techniques and elementary sabre techniques. Upon completion, students should be able to participate in competitive fencing. Instruction in the use of epee techniques will be presented in this course.

PED 137   Badminton   0   2   1
Prerequisites:
Corequisites: None
This course covers the fundamentals of badminton. Emphasis is placed on the basics of serving, clears, drops, drives, smashes, and the rules and strategies of singles and doubles. Upon completion, students should be able to apply these skills in playing situations.

PED 139   Bowling-Beginning   0   2   1
Prerequisites:
Corequisites: None
This course introduces the fundamentals of bowling. Emphasis is placed on ball selection, grips, stance, and delivery along with rules and etiquette. Upon completion, students should be able to participate in recreational bowling. Extra fees are charged for this course.

PED 142   Lifetime Sports   0   2   1
Prerequisites:
Corequisites: None
This course is designed to give an overview of a variety of sports activities. Emphasis is placed on the skills and rules necessary to participate in a variety of lifetime sports. Upon completion, students should be able to demonstrate an awareness of the importance of participating in lifetime sports activities.

PED 143   Volleyball-Beginning   0   2   1
Prerequisites:
Corequisites: None
This course covers the fundamentals of volleyball. Emphasis is placed on the basics of serving, passing, setting, spiking, blocking, and the rules and etiquette of volleyball. Upon completion, students should be able to participate in recreational volleyball.

PED 152   Swimming-Beginning   0   2   1
Prerequisites:
Corequisites: None
This course is designed for non-swimmers and beginners. Emphasis is placed on developing confidence in the water, learning water safety, acquiring skills in floating, and learning elementary strokes. Upon completion, students should be able to demonstrate safety skills and be able to tread water, back float, and use the crawl stroke for 20 yards.

PED 153   Swimming-Intermediate   0   2   1

Prerequisites: PED 152 or Equivalent
Corequisites: None
This course is designed for those who have mastered basic swimming skills. Emphasis is placed on refining basic skills and learning new swim strokes. Upon completion, students should be able to demonstrate the four basic strokes, the scissors kick, the underwater swim, and other related skills.

PED 154   Swimming-for Fitness   0   2   1

Prerequisites: Demonstrated swimming ability
Corequisites: None
This course introduces lap swimming, aquacieses, water activities, and games. Emphasis is placed on increasing cardio-vascular efficiency through aquatic exercise. Upon completion, students should be able to develop an individualized aquatic fitness program.

PED 155   Water Aerobics   0   3   1

Prerequisites:
Corequisites: None
This course introduces rhythmic aerobic activities performed in water. Emphasis is placed on increasing cardiovascular fitness levels, muscular strength, muscular endurance, and flexibility. Upon completion, students should be able to participate in an individually-paced exercise program.

PED 160   Canoeing-Basic   0   2   1

Prerequisites: PED 152 or Demonstrated Swimming Ability
Corequisites: None
This course provides basic instruction for the beginning canoeist. Emphasis is placed on safe and correct handling of the canoe and rescue skills. Upon completion, students should be able to demonstrate basic canoeing, safe-handling, and self-rescue skills. Instruction will be provided in paddling a canoe both solo and tandem; extra fees are charged for equipment.

PED 161   Canoeing-Rivers   0   2   1

Prerequisites: PED 160 or Demonstrated Swimming Ability
Corequisites: None
This course provides practice in the basic skills of river and whitewater canoeing. Emphasis is placed on river running, safety, and care of equipment. Upon completion, students should be able to demonstrate navigation in a moving current, canoe safety, and self-rescue skills. Instruction will be provided in paddling a canoe both solo and tandem; extra fees are charged for equipment.

PED 163   Kayaking-Basic   0   2   1

Prerequisites: PED 152 or Demonstrated Swimming Ability
Corequisites: None
This course is designed to teach the basic skills of kayaking. Topics include forward and reverse strokes, sweeps, Eskimo roll, and self-rescue skills. Upon completion, students should be able to maneuver and demonstrate safe kayaking practices. Although intended for students who have an interest in moving water, this course is valuable for those who want to paddle on lakes; extra fees are charged for equipment.

PED 164   Kayaking-Whitewater   0   2   1

Prerequisites: PED 163 or Demonstrated Swimming Ability
Corequisites: None
This course covers the skills necessary to safely negotiate Class I, Class II and some Class III rapids. Topics include execution of a river roll, maneuvering, rescuing and retrieving kayaker and equipment. Upon completion of this class, students should be able to safely navigate Class I, Class II and some

Class III rapids and demonstrate the rescue of a kayaker who is in the water. Extra fees are charged for equipment.

PED 169   Orienteering   0   2   1

Prerequisites:
Corequisites: None
This course introduces the various types of orienteering and proper orienteering techniques. Emphasis is placed on defining various types of orienteering and recognizing and drawing topographic map symbols. Upon completion, students should be able to draw topographic map symbols and negotiate a 3-5 km cross-country orienteering course in a specified time period.

PED 170   Backpacking   0   2   1

Prerequisites:
Corequisites: None
This course covers the proper techniques for establishing a campsite, navigating in the wilderness, and planning for an overnight trip. Topics include planning for meals, proper use of maps and compass, and packing and dressing for extended periods in the outdoors. Upon completion, students should be able to identify quality backpacking equipment, identify the principles of no-trace camping, and successfully complete a backpacking experience.

PED 173   Rock Climbing   0   2   1

Prerequisites:
Corequisites: None
This course teaches the fundamental skills and safety of rock climbing. Topics include rock climbing, bouldering, rappelling, the correct method of belaying for climbing and rappelling, and knowledge of equipment. Upon completion, students should be able to demonstrate strong and skillful techniques in climbing and rappelling.

PED 174   Wilderness Pursuits   0   2   1

Prerequisites:
Corequisites: None
This course covers the skills necessary to prepare for and participate in a wilderness trip. Emphasis is placed on planning, preparing, and participating in a wilderness pack trip. Upon completion, students should be able to safely participate in overnight wilderness pack trips.

PED 175   Horseback Riding I   0   2   1

Prerequisites:
Corequisites: None
This course introduces beginning and non-riders to recreational horseback riding. Topics include riding skills, equipment, handling of horses, mounting, care of the horse, and coordinated horse-rider balance. Upon completion, students should be able to demonstrate riding, safety, and horse management skills. Extra fees charged for this course.

PED 180   Cycling   0   2   1

Prerequisites:
Corequisites: None
This course is designed to promote physical fitness through cycling. Emphasis is placed on selection and maintenance of the bicycle, gear shifting, pedaling techniques, safety procedures, and conditioning exercises necessary for cycling. Upon completion, students should be able to demonstrate safe handling of a bicycle for recreational use.

PED 181   Snow Skiing-Beginning   0   2   1

Prerequisites:
Corequisites: None
This course introduces the fundamentals of snow skiing. Topics include basic techniques, safety, and equipment involved in snow skiing. Upon completion, students should be able to ski a down slope, enter and exit a ski lift, and perform basic maneuvers on skis. Extra fees are charged for this course.

PED 182   Snow Skiing Intermediate   0   2   1

Prerequisites: PED 181 or Equivalent
Corequisites: None
This course is designed to further develop snow skiing skills. Topics include selection and care of equipment, parallel skiing and turns, christies, advanced jumps, trail skiing, and slalom racing. Upon completion, students should be able to ski on varying terrains and snow conditions with control and safety. Extra fees are charged for this course.

PED 183   Folk Dancing   0   2   1

Prerequisites:
Corequisites: None
This course teaches the fundamental folk dance movements along with cultural traditions from various countries. Emphasis is placed on the history and traditions of the folk dance as well as the movements and the dances themselves. Upon completion, students should be able to demonstrate folk dances as well as knowledge of their origins and cultural traditions.

PED 187   Social Dance-Beginning   0   2   1

Prerequisites:
Corequisites: None
This course introduces the fundamentals of popular social dances. Emphasis is placed on basic social dance techniques, dances, and a brief history of social dance. Upon completion, students should be able to demonstrate specific dance skills and perform some dances. Some dances included in this course are the Cha-Cha, Fox Trot, Waltz, Swing, Tango and Rumba.

PED 188   Social Dance-Intermediate   0   2   1

Prerequisites: PED 187 or Equivalent
Corequisites: None
This course covers advanced fundamentals of social dancing. Topics include rhythm, appearance, and routine sequence. Upon completion, students should be able to perform more difficult steps and types of dances. Some dances included in this course are the Swing, Rumba, Waltz, Fox Trot, Cha-Cha and basic Mambo.

PED 191   Selected Topics in Physical Education   0   2   1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

PED 191B   Canoeing-Whitewater   0   2   1

Prerequisites: PED 161 or equivalent
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Emphasis in this course will be placed on Whitewater Canoeing skills in class II and III rapids.

PED 191C   Kung Fu-Individual Activity   0   2   1

Prerequisites: PED 125 or equivalent
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. The emphasis in this course is the martial art of Kung-Fu.

PED 191D   Self-Protection for Women   0   2   1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Emphasis in this class is on techniques of Self-Defense for Women.

PED 191E   Yoga-Intermediate   0   2   1

Prerequisites: PED 122 or equivalent
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Emphasis in this class is on intermediate and advanced techniques of Yoga.

PED 210   Team Sports   0   3   1

Prerequisites:
Corequisites: None
This course introduces the fundamentals of popular American team sports. Emphasis is placed on rules, equipment, and motor skills used in various sports. Upon completion, students should be able to demonstrate knowledge of the sports covered.

PED 220   Exercise for Physically Challenged   0   2   1

Prerequisites:
Corequisites: None
This course is designed to improve physical strength, endurance, and range of motion while focusing on individual needs. Emphasis is placed on exercises which are designed and adapted to serve those with special needs. Upon completion, students should be able to show improved physical fitness, body awareness, and an appreciation for their physical well-being.

PED 260   Lifeguard Training   1   2   2

Prerequisites: PED 153 or Equivalent
Corequisites: None
This course covers the skills, knowledge, and techniques of lifesaving and lifeguarding. Topics include identifying and minimizing aquatic hazards, recognizing and effectively rescuing people in distress, and developing safety skills. Upon completion, students should be able to demonstrate skills, knowledge, and techniques of lifesaving and lifeguarding to pass American Red Cross lifeguarding certification.

PED 262   Water Safety Instructor   1   2   2

Prerequisites: PED 153 or Equivalent
Corequisites: None
This course covers the knowledge and skills necessary to teach and certify others in the American Red Cross certification

swimming programs. Emphasis is placed on teaching basic res-cue skills, strengthening swimming strokes, and rescue and safe-ty procedures. Upon completion, students should be able to demonstrate skills, knowledge, and techniques to pass the American Red Cross Water Safety Instructor's certification.

PED 291   Selected Topics in
**   Physical Education   0   3   1**

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of cur-rent interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or disci-pline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

PED 291B Independent Weight Training   0   3   1

Prerequisites:
Corequisites: None
This course provides an opportunity to explore areas of cur-rent interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or disci-pline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. The Independent Weight Training class is intended for students who cannot attend a regularly scheduled class.

PHS - Physical Science, Basic

	Lecture	Lab	Credit

PHS 110   Basic Physical Science   3   2   4

Prerequisites:
Corequisites: None
This course introduces the physical environment with emphasis on the laws and physical concepts that impact the world and universe. Topics include astronomy, geology, meteo-rology, general chemistry, and general physics. Upon comple-tion, students should be able to describe the forces and composition of the earth and universe.

PHS 140   Weather and Climate   3   0   3

Prerequisites:
Corequisites: None
This course introduces the nature, origin, processes, and dynamics of the earth's atmospheric environment. Topics include general weather patterns, climate, and ecological influ-ences on the atmosphere. Upon completion, students should be able to demonstrate an understanding of weather formation, pre-cipitation, storm patterns, and processes of atmospheric pollution.

PSF - Physical Fitness Technology

	Lecture	Lab	Credit

PSF 110   Exercise Science   4   0   4

Prerequisites:
Corequisites: None
This course is a survey of scientific principles, methodolo-gies, and research as applied to exercise and physical adapta-tions to exercise. Topics include the basic elements of kinesiology, biomechanics, and motor learning. Upon comple-tion, students should be able to identify and describe physiologi-cal responses and adaptations to exercise.

PSF 111   Fitness & Exercise Testing I   3   2   4

Prerequisites:
Corequisites: None
This course introduces the students to graded exercise test-ing. Topics include various exercise testing protocols with meth-ods for prescribing exercise programs based on exercise tolerance tests and the use of various equipment and protocols. Upon completion, students should be able to conduct specific exercise tests and the use of various equipment.

PSF 114   Physical Fitness Theory &
**   Instruction   4   0   4**

Prerequisites: PSF 110
Corequisites: None
This course provides information about related components of fitness and general information about the industry. Topics include the study of the components of fitness, theories of exer-cise and fitness, and information about the industry. Upon com-pletion, students should be able to identify fitness components and demonstrate these in an exercise setting.

PSF 116   Prevention & Care of
**   Exercise Injuries   3   2   4**

Prerequisites:
Corequisites: None
This course provides information about the care and preven-tion of exercise injuries. Topics include proper procedures, pre-vention techniques, and on-site care of injuries. Upon completion, students should be able to demonstrate the knowl-edge and skills necessary to prevent and care for exercise related injuries.

PSF 120   Group Exercise Instruction   2   2   3

Prerequisites: PSF 114
Corequisites: None
This course introduces the concepts and guidelines of instructing exercise classes. Topics include program designs, working with special populations, and principles of teaching and monitoring physical activity. Upon completion, students should be able to demonstrate basic skills in instructing an exercise class and monitoring workout intensity.

PSF 210   Personal Training   3   2   4

Prerequisites: PSF 110 and PSF 111
Corequisites: None
This course introduces the student to the aspects of personal (one-on-one) training. Topics include training systems, market-ing, and program development. Upon completion, students should be able to demonstrate personal training techniques and competencies of same.

PSF 211   Fitness & Exercise Testing II   3   2   4

Prerequisites: PSF 110 Exercise Science
                     PSF 111 Fitness & Exercise Testing I
                     BIO 168 & 169
Corequisites: None
This is an advanced course in graded exercise testing. Vari-ous exercise testing protocols for cardiorespiratory fitness are covered with methods for prescribing exercise programs based on exercise test results. Upon completion, students should be able to conduct specific exercise tolerance tests using a variety of equipment & protocols.

PSF 212   Exercise Programming   3   2   4

Prerequisites: PSF 110
Corequisites: None
This course provides information about organizing, scheduling, and implementation of physical fitness programs. Topics include programming for various age groups, competitive activities and special events, and evaluating programs. Upon completion, students should be able to organize and implement exercise activities in a competent manner.

PSF 218   Lifestyle Changes & Wellness   3   2   4

Prerequisites:
Corequisites: None
This course introduces health risk appraisals and their application to lifestyle changes. Topics include nutrition, weight control, stress management, and the principles of exercise. Upon completion, students should be able to conduct health risk appraisals and apply behavior modification techniques in a fitness setting.

PTA - Physical Therapist Assistant

		Lecture	Lab	Clinic	Credit

**PTA 110   Introduction to
              Physical Therapy   2   3   0   3**

Prerequisites: BIO 168
Corequisites: None
This course introduces the field of physical therapy including the history and standards of practice for the physical therapist assistant and basic treatment techniques. Emphasis is placed on ethical and legal considerations, universal precautions, vital signs, documentation, basic patient preparation and treatment skills, and architectural barrier screening. Upon completion, students should be able to explain the role of the physical therapist assistant and demonstrate competence in basic techniques of patient care.

**PTA 125   Gross and Functional
              Anatomy   3   6   0   5**

Prerequisites: BIO 168, BIO 169, and PTA 110
Corequisites: PTA 135 and PTA 145
This course provides an in-depth, clinically oriented survey of gross and functional anatomy. Emphasis is placed on musculoskeletal and nervous systems and clinical biomechanics, including goniometry, basic manual muscle testing, and components of normal gait. Upon completion, students should be able to identify specific anatomical structures and describe, observe, and measure musculoskeletal posture and function.

PTA 135   Pathology   4   0   0   4

Prerequisites: BIO 168, BIO 169, and PTA 110
Corequisites: PTA 125 and PTA 145
This course introduces principles of pathology, processes of and normal responses to injury and disease, and changes related to aging. Emphasis is placed upon conditions most commonly treated in physical therapy. Upon completion, students should be able to discuss basic pathological processes and identify etiology, signs, symptoms, complications, treatment options, and prognoses of specific orthopedic conditions.

PTA 145   Therapeutic Procedures   2   6   0   4

Prerequisites: BIO 168, BIO 169, and PTA 110
Corequisites: PTA 125 and PTA 135
This course provides a detailed study of specific treatment procedures and the physiological principles and techniques

involved. Emphasis is placed on the correct application of superficial heat and cold, massage and soft tissue mobilization, ultrasound, diathermy, traction, and electrical stimulation. Upon completion, students should be able to demonstrate competence in the application of these modalities and explain the indications, contraindications, effects, and precautions for each.

PTA 165   PTA Clinical I   0   0   9   3

Prerequisites: PTA 125, PTA 135, and PTA 145
Corequisites: PTA 185, PTA 215, and PTA 225
This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.

PTA 185   PTA Clinical II   0   0   9   3

Prerequisites: PTA 125, PTA 135, and PTA 145
Corequisites: PTA 165, PTA 215, and PTA 225
This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.

PTA 212   Health Care/Resources   2   0   0   2

Prerequisites: PTA 235
Corequisites: PTA 222, PTA 245, and PTA 255
This course provides an overview of various aspects of health care delivery systems and the interrelationships of health care team members. Topics include health agencies and their functions, health care team member roles, management, and other health care issues. Upon completion, students should be able to discuss the functions of health organizations and team members and aspects of health care affecting physical therapy delivery.

PTA 215   Therapeutic Exercise   2   3   0   3

Prerequisites: PTA 125, PTA 135, and PTA 145
Corequisites: PTA 225, PTA 165, and PTA 185
This course introduces basic concepts of strengthening, endurance, and flexibility exercise and balance, gait, and posture training. Emphasis is placed on applying techniques to the treatment of orthopedic conditions. Upon completion, students should be able to safely and effectively execute basic exercise programs and balance, gait, and posture training.

PTA 222   Professional Interactions 2   0   0   2

Prerequisites: PTA 235
Corequisites: PTA 212, PTA 245, and PTA 255
This course is designed to assist in the development of effective interpersonal skills in the physical therapist assistant setting. Topics include reactions to disability, the grieving process, methods of communication, motivation, health promotion, disease prevention, and aging. Upon completion, students should be able to discuss and demonstrate methods for achieving effective interaction with patients, families, the public, and other health care providers.

**PTA 225   Introduction to
              Rehabilitation   3   3   0   4**

Prerequisites: PTA 125, PTA 135, and PTA 145
Corequisites: PTA 215, PTA 165, and PTA 185

This course covers cardiovascular, pulmonary, and integumentary conditions, as well as causes and treatment of amputations. Emphasis is placed upon pathological processes as well as comprehensive treatment of the various conditions studied. Upon completion, students should be able to discuss etiology, signs, symptoms, complications, and prognoses of various conditions and implement components of a comprehensive treatment program.

**PTA 235   Neurological
              Rehabilitation   3   6   0   5**

Prerequisites: PTA 215, PTA 225, PTA 165, and PTA 185
Corequisites: None

This course covers neurological and neuromuscular conditions experienced throughout the life span. Topics include the pathology of selected conditions and the methods and rationales of various treatment approaches. Upon completion, students should be able to discuss etiology, signs, symptoms, complications, and prognoses of various conditions and implement components of a comprehensive treatment program.

PTA 245   PTA Clinical III   0   0   12   4

Prerequisites: PTA 235
Corequisites: PTA 212, PTA 222, and PTA 255

This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.

PTA 255   PTA Clinical IV   0   0   12   4

Prerequisites: PTA 235
Corequisites: PTA 212, PTA 222, and PTA 245

This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.

PHY - Physics

                                Lecture Lab Credit

PHY 110   Conceptual Physics   3   0   3

Prerequisites:
Corequisites: PHY 110A

This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. You must register for both PHY 110 and PHY 110A unless you have received prior credit for one of these classes. Upon completion, students should be able to describe examples and applications of the principles studied. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/ mathematics.*

PHY 110A   Conceptual Physics Lab   0   2   1

Prerequisites:
Corequisites: PHY 110

This course is a laboratory for PHY 110. Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110. You must register for both PHY 110 and PHY 110A unless you have received prior credit for one of these classes. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in PHY 110. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

PHY 131   Physics-Mechanics   3   2   4

Prerequisites: MAT 121 or MAT 161
Corequisites: None

This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields. Credit by exam for PHY 151 can be obtained by request upon completion.

**PHY 132   Physics-Electricity and
              Magnetism   3   2   4**

Prerequisites: PHY 131 or equivalent
Corequisites: None

This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, waves, electricity, magnetism, circuits, transformers, motors, and generators. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.
Credit by exam for PHY 152 can be obtained by request upon completion.

PHY 133   Physics-Sound and Light   3   2   4

Prerequisites: PHY 131 or equivalent
Corequisites: None

This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, wave motion, sound, light, and modern physics. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

PHY 151   College Physics I   3   2   4

Prerequisites: MAT 161, MAT 172, MAT 175, MAT 1504,
              or MAT 3507 (one of these)
Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

PHY 152   College Physics II   3   2   4

Prerequisites: PHY 151 or equivalent or permission
Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

PHY 153   Modern Topics in Physics   3   2   4

Prerequisites: PHY 151 or equivalent
Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include atomic structure, nuclear processes, natural and artificial radioactivity, basic quantum theory, and special relativity. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PHY 251   General Physics I   3   3   4

Prerequisites: MAT 271 or MAT 1524 or equivalent
Corequisites: MAT 272

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

PHY 252   General Physics II   3   3   4

Prerequisites: MAT 272 and PHY 251 or equivalent
Corequisites: None

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

PHY 253   Modern Physics   3   3   4

Prerequisites: PHY 251 and MAT 272 or equivalent
Corequisites: None

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include atomic structure, nuclear processes, natural and artificial radioactivity, quantum theory, and special relativity. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analyti-

cal problem-solving ability for the topics covered. This course is recommended for students majoring in physics, chemistry, or as an elective for engineering.

PLU - Plumbing

	Lecture	Lab	Credit

PLU 110   Modern Plumbing   4   15   9

Prerequisites:
Corequisites: None

This course introduces the tools, equipment, and materials associated with the plumbing industry. Topics include safety, use and care of tools, recognition and assembly of fittings and pipes, and other related topics. Upon completion, students should be able to safely assemble various pipes and fittings in accordance with state code requirements.

PLU 111   Intro to Basic Plumbing   1   3   2

Prerequisites:
Corequisites: None

This course introduces basic plumbing tools, materials, and fixtures. Topics include standard tools, materials, and fixtures used in basic plumbing systems and other related topics. Upon completion, students should be able to demonstrate an understanding of a basic plumbing system.

PLU 120   Plumbing Applications   4   15   9

Prerequisites:
Corequisites: None

This course covers general plumbing layout, fixtures, and water heaters. Topics include drainage, waste and vent pipes, water service and distribution, fixture installation, water heaters, and other related topics. Upon completion, students should be able to safely install common fixtures and systems in compliance with state and local building codes.

PLU 130   Plumbing Systems   3   9   6

Prerequisites:
Corequisites: None

This course covers the maintenance and repair of plumbing lines and fixtures. Emphasis is placed on identifying and diagnosing problems related to water, drain and vent lines, water heaters, and plumbing fixtures. Upon completion, students should be able to identify and diagnose needed repairs to the plumbing system.

POL - Political Science

	Lecture	Lab	Credit

POL 120   American Government   3   0   3

Prerequisites:
Corequisites: None

This course is a study of the origins, development, structure, and functions of American national government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior, and policy formation. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

POL 193   Selected Topics in Political Science   1-3   0-6   3

Prerequisites: Enrollment in the program
Corequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

POL 210   Comparative Government   3   0   3

Prerequisites:
Corequisites: None

This course provides a cross-national perspective on the government and politics of contemporary nations such as Great Britain, France, Germany, and Russia. Topics include each country's historical uniqueness, key institutions, attitudes and ideologies, patterns of interaction, and current political problems. Upon completion, students should be able to identify and compare various nations' governmental structures, processes, ideologies, and capacity to resolve major problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

POL 220   International Relations   3   0   3

Prerequisites:
Corequisites: None

This course provides a study of the effects of ideologies, trade, armaments, and alliances on relations among nation-states. Emphasis is placed on regional and global cooperation and conflict, economic development, trade, non-governmental organizations, and international institutions such as the World Court and UN. Upon completion, students should be able to identify and discuss major international relationships, institutions, and problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

POS - Postal Service

	Lecture	Lab	Credit

POS 110   Postal Service History and Organization   3   0   3

Prerequisites:
Corequisites: None

This course covers the history and organization of the US Postal Service. Topics include postal service history, policies, philosophies, regulations, rules, and organization. Upon completion, students should be able to explain the history and organization of the US Postal Service.

POS 115   Processing and Distribution   3   0   3

Prerequisites:
Corequisites: None

This course covers the steps involved in reviewing, processing, and dispatching all classes and types of mail. Topics include quality control, platform operation, dispatch discipline, automation and mechanization, mail flow, manual operations, mail preparation, and premium service. Upon completion, students should be able to explain the flow of mail from sender to receiver and the importance of service standards.

POS 120   Postal Operations Support   3   0   3

Prerequisites:
Corequisites: None

This course covers in-plant support and customer services operations programs support. Topics include quality improvement, address management systems, transportation and networks, delivery services, mail processing, bar coding, and automation sort plans. Upon completion, students should be able to explain postal mechanization, machine distribution, operational planning, budgeting, and functional coordination with customer services.

POS 125   Postal Delivery/Collection   3   0   3

Prerequisites:
Corequisites: None

This course is an in-depth study of delivery, collection, and Function-Four review. Topics include carrier responsibilities, delivery and collection rules, time keeping, equipment and supplies, mail count and route inspection, parcel post, and Function-Four review. Upon completion, students should be able to explain the duties and skills required in the carrier crafts, the management of delivery services, and staffing and scheduling audits.

POS 130   POS Support & Finance   3   0   3

Prerequisites:
Corequisites: None

This course covers information and procedures necessary to administer financial control of post offices. Topics include protecting funds and accountable paper, recording receipts and disbursements, verifying accountability, postal service reports, and controlling receipts and receipt forms. Upon completion, students should be able to explain postal revenue receipt and control, budgeting, financial accounting/reporting, time keeping, travel regulations, and administrative services.

POS 135   Officer-in-Charge Training   3   0   3

Prerequisites:
Corequisites: None

This course covers the duties of a window clerk. Topics include window services, image and customer relations, one-on-one selling, postage meters, mail classifications, claims and inquiry, and daily financial reporting. Upon completion, students should be able to explain effective customer relations, retailing postal products, professional window service operations, and the duties of customer service representatives.

POS 140   POS Safety Training   3   0   3

Prerequisites:
Corequisites: None

This course covers postal work safety. Topics include safety inspections, hazard recognition and abatement, accident investigation and reporting, OSHA, and occupational, health, and motor vehicle safety. Upon completion, students should be able to explain principles of safety, job safety analysis, OSHA requirements, current practices related to health hazards, and necessary documentation.

PRN - Printing

	Lecture	Lab	Credit

PRN 131   Flexography I   2   4   4
Prerequisites:
Corequisites: None
This course provides basic hands-on instruction in flexographic image preparation, platemaking, mounting, and printing. Emphasis is placed on taking press measurements, making and mounting plates, and obtaining quality in press operation on a narrow-web press. Upon completion, students should be able to describe and perform flexographic production procedures in pre-press, press setup, press operation, and die-cutting.

PRN 132   Flexography II   2   4   4
Prerequisites: PRN 131
Corequisites: None
This course is a continuation of PRN 131 and introduces wide-web presses. Emphasis is placed on troubleshooting press problems, color matching, parts identification, make-ready, and setup of narrow-web, wide-web, or corrugated presses. Upon completion, students should be able to produce advanced projects involving all flexographic production phases. This course is a unique concentration requirement in the Flexography concentration in the Graphic Arts and Imaging Technology program.

PRN 140   Bindery and Finishing   1   2   2
Prerequisites:
Corequisites: None
This course covers bindery and finishing operations. Topics include folding, cutting, gathering, binding, embossing, stamping, die-cutting, drilling, punching, mailing, and packaging. Upon completion, students should be able to operate various finishing and bindery equipment and demonstrate an understanding of the relationship of finishing to printing processes.

PRN 155   Screen Printing I   1   3   2
Prerequisites:
Corequisites: None
This course covers screen printing techniques and materials. Topics include methods, materials, design, and image and stencil preparation techniques. Upon completion, students should be able to produce single- or multi-color projects.

PRN 156   Screen Printing II   1   3   2
Prerequisites: PRN 155
Corequisites: None
This course is a continuation of PRN 155. Emphasis is placed on advanced techniques and current industry practices. Upon completion, students should be able to produce multi-color projects utilizing various photographic stencil methods and substrates.

PRN 221   Offset Press Operations   1   4   3
Prerequisites:
Corequisites: None
This course covers advanced lithographic theory and provides extensive hands-on operating experience. Emphasis is placed on make-ready, press operation, maintenance, and troubleshooting of multi-color jobs on sheet-fed offset presses and duplicators. Upon completion, students should be able to set up, run, maintain, and produce commercial-quality multi-color work.

PRN 231   Flexography III   2   4   4
Prerequisites: PRN 132
Corequisites: None
This course is a continuation of PRN 132. Emphasis is placed on the products made and processes used in the industry. Upon completion, students should be able to demonstrate an understanding of advanced production techniques of flexographic products. This course is a unique concentration requirement in the Flexography concentration in the Graphic Arts and Imaging Technology program.

PRN 232   Flexography IV   2   4   4
Prerequisites: PRN 231
Corequisites: None
This course provides opportunities for advanced and specialized study in flexography. Emphasis is placed on specialized product design and production. Upon completion, students should be able to demonstrate an understanding of the comprehensive scope of the flexographic industry, products, and processes. This course is a unique concentration requirement in the Flexography concentration in the Graphic Arts and Imaging Technology program.

PRN 240   Print Estimating / Planning   3   0   3
Prerequisites: GRA 121
Corequisites: None
This course covers printing economics, development of cost centers, job flow throughout departments, and material and labor costs. Topics include budgeted, hourly, cost-rate derivation; production standards and data; and analysis of other estimating procedures including computer-assisted estimating. Upon completion, students should be able to demonstrate an understanding of economic factors of the printing industry and determine all production costs of printed jobs.

PRN 241   Flexography Applications I   2   4   4
Prerequisites: GRA 152 and PRN 131
Corequisites: None
This course provides an opportunity to specialize in certain applications in flexographic printing. Emphasis is placed on understanding color and production concerns in order to produce products. Upon completion, students should be able to troubleshoot color problems during printing and relate them to the production procedures. This course is a unique concentration requirement in the Flexography concentration in the Graphic Arts and Imaging Technology program.

PRN 242   Flexography Applications II   2   4   4
Prerequisites: PRN 241, GRA 153, and GRA 255
Corequisites: None
This course provides an opportunity to produce comprehensive projects, including color work on special substrates using specialty inks. Emphasis is placed on compensation for press limitations to produce high-quality color products. Upon completion, students should be able to produce color images on a variety of substrates and troubleshoot and solve production problems. This course is a unique concentration requirement in the Flexography concentration in the Graphic Arts and Imaging Technology program.

PSY - Psychology

	Lecture	Lab	Credit

PSY 141   Psych of Death and Dying   3   0   3
Prerequisites:
Corequisites: None
This course presents psychological perspectives on death and the dying. Topics include the culturally diverse aspects of death and the grieving process, adjustment mechanisms, interventions, and the psychological and ethical dimensions of death and dying. Upon completion, students should be able to demonstrate an understanding of the psychological aspects of death and dying. *This course is intended for all Associate degree programs.*

PSY 150   General Psychology   3   0   3
Prerequisites:
Corequisites: None
This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

PSY 193   Selected Topics in Psychology   1-3   0-6   3
Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

PSY 241   Developmental Psychology   3   0   3
Prerequisites: PSY 150
Corequisites: None
This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

PSY 263   Educational Psychology   3   0   3
Prerequisites: PSY 150
Corequisites: None
This course examines the application of psychological theories and principles to the educational process and setting. Topics include learning and cognitive theories, achievement motivation, teaching and learning styles, teacher and learner roles, assessment, and developmental issues. Upon completion, students should be able to demonstrate an understanding of the application of psychological theory to educational practice.

PSY 281   Abnormal Psychology   3   0   3
Prerequisites: PSY 150
Corequisites: None
This course provides an examination of the various psychological disorders, as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is

placed on terminology, classification, etiology, assessment, and treatment of the major disorders. Upon completion, students should be able to distinguish between normal and abnormal behavior patterns as well as demonstrate knowledge of etiology, symptoms, and therapeutic techniques. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

RED - Reading

See additional developmental reading courses in the Pre-College Programs section of this catalog.

	Lecture	Lab	Credit

RED 111   Critical Reading for College   3   0   3
Prerequisites: RED 090 or Appropriate
                Placement Test Score(s)
Corequisites: None
This course is designed to enhance critical reading skills. Topics include vocabulary enrichment, reading flexibility, metacognitive strategies, and advanced comprehension skills, including analysis and evaluation. Upon completion, students should be able to demonstrate comprehension and analysis and respond effectively to material across disciplines. In addition, this course is designed to improve reading speed.

REA - Real Estate Appraisal

	Lecture	Lab	Credit

**REA 101   Introduction to Real Estate
           Appraisal (R-1)   2   0   2**
Prerequisites:
Corequisites: None
This course provides an introduction to introduces the entire valuation process, with specific coverage of residential neighborhood and property analysis. Topics include basic real property law, concepts of value and operation of real estate markets, mathematical and statistical concepts, finance, and residential construction/design. Upon completion, students should be able to demonstrate adequate preparation for REA 102. This course is required for the Real Estate Appraisal certificate.

**REA 102   Valuation Principles &
           Procedures (R-2)   2   0   2**
Prerequisites: REA 101
Corequisites: None
This course introduces procedures used to develop an estimate of value and how the various principles of value relate to the application of such procedures. Topics include the sales comparison approach, site valuation, sales comparison, the cost approach, the income approach, and reconciliation. Upon completion, students should be able to complete the Uniform Residential Appraisal Report (URAR). This course is required for the Real Estate Appraisal certificate.

**REA 103   Applied Residential Property
           Valuation (R-3)   2   0   2**
Prerequisites: REA 102
Corequisites: None
This course covers the laws and standards practiced by appraisers in the appraisal of residential 1-4 unit properties and small farms. Topics include Financial Institutions Reform and Recovery Enforcement Act (FIRREA), Uniform Standards of

Professional Appraisal Practice (USPAP), and North Carolina statutes and rules. Upon completion, students should be able to demonstrate eligibility to sit for the NC Appraisal Board license trainee examination and to enroll in REA 201. This course is required for the Real Estate Appraisal certificate.

REA 201   Introduction Income Property Appraisal (G-1)   2   0   2

Prerequisites: REA 103
Corequisites: None

This course introduces concepts and techniques used to appraise real estate income properties. Topics include real estate market analysis, property analysis and site valuation, how to use financial calculators, present value, NOI, and before-tax cash flow. Upon completion, students should be able to estimate income property values using direct capitalization and to sit for the NC Certified Residential Appraiser examination. This course is required for the Real Estate Appraisal certificate.

REA 202   Advanced Income Capitalization Procedures (G-2)   2   0   2

Prerequisites: REA 201
Corequisites: A financial calculator is required for this course

This course expands direct capitalization techniques and introduces yield capitalization. Topics include yield rates, discounted cash flow, financial leverage, and traditional yield capitalization formulas. Upon completion, students should be able to estimate the value of income producing property using yield capitalization techniques. This course is required for the Real Estate Appraisal certificate.

REA 203   Applied Income Property Valuation (G-3)   2   0   2

Prerequisites: REA 202
Corequisites: None

This course covers the laws, rules, and standards pertaining to the principles and practices applicable to the appraisal of income properties. Topics include FIRREA, USPAP, Uniform Commercial and Industrial Appraisal Report (UCIAR) form, North Carolina statutes and rules, and case studies. Upon completion, students should be able to prepare a narrative report that conforms to the USPAP and sit for the NC Certified General Appraisal examination. This course is required for the Real Estate Appraisal certificate.

RLS - Real Estate

		Lecture	Lab	Credit

RLS 112   Real Estate Fundamentals   4   0   4

Prerequisites:
Corequisites: None

This course provides basic instruction in real estate principles and practices. Topics include law, finance, brokerage, closing, valuation, management, taxation, mathematics, construction, land use, property insurance, and NC License Law and Commission Rules. Upon completion, students should be able to demonstrate basic knowledge and skills necessary for real estate sales.

RLS 113   Real Estate Mathematics   2   0   2

Prerequisites:
Corequisites: None

This course provides basic instruction in business mathematics applicable to real estate situations. Topics include area computations, percentage of profit/loss, bookkeeping and accounting methods, appreciation and depreciation, financial calculations and interest yields, property valuation, insurance, taxes, and commissions. Upon completion, students should be able to demonstrate proficiency in applied real estate mathematics.

RLS 114   Real Estate Brokerage Operations   2   0   2

Prerequisites: RLS 112 or current Real Estate license
Corequisites: None

This course provides basic instruction in the various real estate brokerage operations, including trust account records and procedures. Topics include establishing a brokerage firm, management concepts and practices, personnel and training, property management, advertising and publicity, records and bookkeeping systems, and financial operations. Upon completion, students should be able to establish, operate, and manage a realty brokerage practice in a manner which protects and serves the public interest.

RLS 115   Real Estate Finance   2   0   2

Prerequisites: RLS 112 or current Real Estate license
Corequisites: None

This course provides advanced instruction in financing real estate transactions and real property valuation. Topics include sources of mortgage funds, financing instruments, mortgage types, loan underwriting, essential mathematics, and property valuation. Upon completion, students should be able to demonstrate knowledge of real estate finance necessary to act as real estate brokers.

RLS 116   Real Estate Law   2   0   2

Prerequisites: RLS 112 or current Real Estate license
Corequisites: None

This course provides advanced instruction in legal aspects of real estate brokerage. Topics include property ownership and interests, brokerage relationships, agency law, contracts, settlement statements, and NC License Law and Commission Rules. Upon completion, students should be able to demonstrate knowledge of laws relating to real estate brokerage necessary to act as real estate brokers.

RLS 212   Real Property Management   2   0   2

Prerequisites: RLS 112
Corequisites: None

This course covers the principles and practices employed in the management of income-producing properties. Topics include accounting and budgeting techniques, leases and contracts, tenant selection, marketing and investment analysis, and other responsibilities of the property manager. Upon completion, students should be able to read and analyze a property management plan.

RLS 214   Construction Method/Materials   2   2   3

Prerequisites:
Corequisites: None

This course introduces the design of residential structures and the materials, methods, and systems utilized in their construction. Topics include architectural and site considerations, building codes and inspections, cooling and heating systems, and interior/exterior materials. Upon completion, students should be able to identify architectural styles, cabinetry, doors, roofs, windows, and interior/exterior materials and describe environmental concerns.

RLS 216   Land Use Controls   2   0   2

Prerequisites: RLS 112
Corequisites: None
This course analyzes private and public issues germane to the "highest and best use" of real property. Topics include the property survey, zoning ordinances, financing, and other considerations appropriate to the development of real property. Upon completion, students should be able to explain public policies and considerations regarding the uses and development of private property.

RLS 218   Introduction Real Property
**   Valuation**   2   0   2

Prerequisites:
Corequisites: None
This course provides an overview of the entire valuation process for real property. Topics include basic real property law, concepts of value, operations of real estate markets, mathematical and statistical concepts, and residential construction and design. Upon completion, students should be able to read and interpret a form appraisal.

RLS 220 Real Estate Investment Analysis   3   0   3

Prerequisites: BUS 225
Corequisites: None
This course introduces techniques necessary to compare alternative real estate investments. Topics include analysis of positive and negative cash flows, risk and return, acquisition, ownership, disposition of real property, and tax considerations. Upon completion, students should be able to select from alternative investment opportunities.

See the SEL and SEM prefixes for generic Selected Topics and Seminar course descriptions.

RCP - Respiratory Care

	Lecture	Lab	Clinic	Credit

RCP 110   Introduction to
**   Respiratory Care**   3   3   0   4

Prerequisites: Enrollment in the Respiratory Care program
Corequisites: RCP 123
This course introduces the respiratory care profession. Topics include the role of the respiratory care practitioner, medical gas administration, basic patient assessment, infection control, and medical terminology. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.

RCP 111   Therapeutics/
**   Diagnostics**   4   3   0   5

Prerequisites: RCP 110
Corequisites: None
This course is a continuation of RCP 110. Emphasis is placed on entry-level therapeutic and diagnostic procedures used in respiratory care. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.

RCP 112   Patient Management   3   3   0   4

Prerequisites: RCP 111, ENG 113 or ENG 114,
              MAT 115, or MAT 140, or MAT 161
Corequisites: None
This course provides entry-level skills in adult/pediatric mechanical ventilation and respiratory care procedures in traditional and alternative settings. Emphasis is placed on therapeutic

modalities and physiological effects of cardiopulmonary rehabilitation, home care, mechanical ventilation, and monitoring. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.

RCP 113   Respiratory Care
**   Pharmacology**   2   0   0   2

Prerequisites: Enrollment in the Respiratory Care program
Corequisites: None
This course covers the drugs used in the treatment of cardiopulmonary diseases. Emphasis is placed on the uses, actions, indications, administration, and hazards of pharmacological agents. Upon completion, students should be able to demonstrate competence though written evaluations.

RCP 114   Cardiopulmonary Anatomy
**   and Physiology**   3   0   0   3

Prerequisites: BIO 163, or BIO 165 and BIO 166, or BIO
              168 and BIO 169
Corequisites: None
This course provides a concentrated study of cardiopulmonary anatomy and physiology essential to the practice of respiratory care. Emphasis is placed on cardiovascular and pulmonary physiology, acid/base balance, and blood gas interpretation. Upon completion, students should be able to demonstrate competence in these concepts through written evaluation.

RCP 115   Cardiopulmonary
**   Pathophysiology**   2   0   0   2

Prerequisites: BIO 163 or BIO 168 and BIO 169
Corequisites: RCP 111, RCP 113, RCP 114, RCP 133
This course introduces the etiology, pathogenesis, and physiology of cardiopulmonary disease and disorders. Emphasis is placed on clinical signs and symptoms along with diagnoses, completions, prognoses, and management. Upon completion, students should be able to demonstrate competence in these concepts through written evaluations.

RCP 123   Special Practice Lab   0   3   0   1

Prerequisites: Enrollment in the Respiratory Care program
Corequisites: RCP 110
This course provides additional laboratory learning opportunities in respiratory care. Emphasis is placed on therapeutic procedures and equipment management. Upon completion, students should be able to demonstrate competence in concepts and procedures through laboratory evaluations.

RCP 133   Respiratory Care Clinical
**   Practice I**   0   0   9   3

Prerequisites: Enrollment in the Respiratory Care program
Corequisites: RCP 110
This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

RCP 143   Respiratory Care Clinical
**   Practice II**   0   0   9   3

Prerequisites: RCP 110
Corequisites: RCP 111
This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

College-Level Credit Course Descriptions

RCP 210   Critical Care Concepts 3   3   0   4

Prerequisites: Successful completion of three semesters of the Respiratory Care program
Corequisites: None
This course provides further refinement of acute patient care and underlying pathophysiology. Topics include a continuation in the study of mechanical ventilation, underlying pathophysiology, and introduction of critical care monitoring. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.

RCP 211   Advanced Monitoring/
**   Procedures   3   3   0   4**

Prerequisites: RCP 210
Corequisites: None
This course includes advanced information gathering and decision making for the respiratory care professional. Topics include advanced cardiac monitoring and special procedures. Upon completion, students should be able to evaluate, design, and recommend appropriate care plans through written and laboratory evaluations.

RCP 214   Neonatal/Pediatric
**   Respiratory Care   1   3   0   2**

Prerequisites: RCP 111
Corequisites: None
This course provides in-depth coverage of the concepts of neonatal and pediatric respiratory care. Emphasis is placed on neonatal and pediatric pathophysiology and on the special therapeutic needs of neonates and children. Upon completion, students should be able to demonstrate competence in these concepts through written and laboratory evaluations.

RCP 215   Career Prep-Advanced
**   Level   0   3   0   1**

Prerequisites: Enrollment in the Respiratory Care program
Corequisites: None
This course provides preparation for employment and the advanced-level practitioner credentialing exam. Emphasis is placed on review of the NBRC Advanced-Level Practitioner Exam and supervision and management. Upon completion, students should be able to successfully complete the appropriate self-assessment examinations and meet the requirements for employment.

RCP 235   RCP Clinical
**   Practice IV   0   0   15   5**

Prerequisites: RCP 111
Corequisites: RCP 210
This course provides advanced practitioner clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

RCP 247   RCP Clinical
**   Practice V   0   0   21   7**

Prerequisites: RCP 210
Corequisites: RCP 211
This course provides advanced practitioner clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

Secretarial

(See OST Office Systems Technology)

Sign Language

(See ALS American Sign Language)

Small Engine Repair

(See Corporate and Continuing Education section of this catalog. Call 704-330-6220 for course information.)

SOC - Sociology

	Lecture	Lab	Credit

SOC 193   Selected Topics in Sociology   1-3   0-6   3

Prerequisites: Enrollment in the program
Corequisites: None
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

SOC 210   Introduction to Sociology   3   0   3

Prerequisites:
Corequisites: None
This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

SOC 213   Sociology of the Family   3   0   3

Prerequisites:
Corequisites: None
This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*
Note: This course is a Writing Intensive Elective for UNCC.

SOC 225   Social Diversity   3   0   3

Prerequisites:
Corequisites: None
This course provides a comparison of diverse roles, interests, opportunities, contributions, and experiences in social life. Topics include race, ethnicity, gender, sexual orientation, class, and religion. Upon completion, students should be able to analyze how cultural and ethnic differences evolve and how they affect personality development, values, and tolerance. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

SPA - Spanish

	Lecture	Lab	Credit

SPA 111   Elementary Spanish I   3   0   3

Prerequisites: None
Corequisites: SPA 181

This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. When registering for this class, students will automatically be registered for SPA 181, Spanish Lab 1. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

SPA 112   Elementary Spanish II   3   0   3

Prerequisites: SPA 111 or consent of Division Director.
Corequisites: SPA 182

This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness. When registering for this class, students will automatically be registered for SPA 182, Spanish Lab 2. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

SPA 120   Spanish for the Workplace   3   0   3

Prerequisites: None
Corequisites: None

This course offers applied Spanish for the workplace to facilitate basic communication with people whose native language is Spanish. Emphasis is placed on oral communication and career-specific vocabulary that targets health, business, and/or public service professions. Upon completion, students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.

SPA 161   Cultural Immersion   2   3   3

Prerequisites: SPA 111
Corequisites: None

This course explores Hispanic culture through intensive study on campus and field experience in a host country or area. Topics include an overview of linguistic, historical, geographical, sociopolitical, economic, and/or artistic concerns of the area visited. Upon completion, students should be able to exhibit first-hand knowledge of issues pertinent to the host area and demonstrate understanding of cultural differences. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

SPA 181   Spanish Lab 1   0   2   1

Prerequisites: None
Corequisites: SPA111

This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness.

SPA 182   Spanish Lab 2   0   2   1

Prerequisites: SPA 181 or consent of Division Director.
Corequisites: SPA112

This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate cultural awareness.

SPA 211   Intermediate Spanish I   3   0   3

Prerequisites: SPA 112 or consent of Division Director.
Corequisites: 281

This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. When registering for this class, students will automatically be registered for SPA 281, Spanish Lab 3. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

SPA 212   Intermediate Spanish II   3   0   3

Prerequisites: SPA 211 or consent of Division Director.
Corequisites: SPA 282

This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. When registering for this class, students will automatically be registered for SPA 282, Spanish Lab 4. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

SPA 221   Spanish Conversation   3   0   3

Prerequisites: SPA 212
Corequisites: None

This course provides an opportunity for intensive communication in spoken Spanish. Emphasis is placed on vocabulary acquisition and interactive communication through the discussion of media materials and authentic texts. Upon completion, students should be able to discuss selected topics, express ideas and opinions clearly, and engage in formal and informal conversations.

SPA 281   Spanish Lab 3   0   2   1

Prerequisites: SPA 182 or consent of Division Director.
Corequisites: SPA 211

This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.

SPA 282   Spanish Lab 4   0   2   1

Prerequisites: SPA 281 or consent Division Director.
Corequisites: SPA 212
This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.

Speech Communication

(See COM Communication)

Study Skills

(See ACA Academic / Life Skills)

SAB - Substance Abuse

	Lecture	Lab	Clinic	Credit

**SAB 110   Substance Abuse
Overview   3   0   0   3**

Prerequisites:
Corequisites: None
This course provides an overview of the core concepts in substance abuse and dependence. Topics include the history of drug use/abuse, effects on societal members, treatment of addiction, and preventive measures. Upon completion, students should be able to demonstrate knowledge of the etiology of drug abuse, addiction, prevention, and treatment.

SAB 120   Intake and Assessment   3   0   0   3

Prerequisites:
Corequisites: None
This course develops processes for establishment of client rapport, elicitation of client information on which therapeutic activities are based, and stimulation of client introspection. Topics include diagnostic criteria, functions of counseling, nonverbal behavior, collaterals and significant others, dual diagnosis, client strengths and weakness, uncooperative clients, and crisis interventions. Upon completion, students should be able to establish communication with clients, recognize disorders, obtain information for counseling, and terminate the counseling process. This course is a unique concentration requirement of the Substance Abuse concentration in the Human Services Technology program.

**SAB 125   Substance Abuse Case
Management   2   2   0   3**

Prerequisites: SAB 120
Corequisites: None
This course provides case management activities, including record keeping, recovery issues, community resources, and continuum of care. Emphasis is placed on establishing a systematic approach to monitor the treatment plan and maintain quality of life. Upon completion, students should be able to assist clients in the continuum of care as an ongoing recovery process and develop agency networking. This course is a unique concentration requirement of the Substance Abuse concentration in the Human Services Technology program.

SAB 135   Addictive Process   3   0   0   3

Prerequisites: PSY 150
Corequisites: None
This course explores the physical, emotional, psychological, and cultural aspects of the addictive process. Emphasis is placed on addictions to food, sex, alcohol, drugs, work, gambling, and relationships. Upon completion, students should be able to identify the effects, prevention strategies, and treatment methods associated with addictive disorders.

SAB 210   Sub Abuse Counseling   2   2   0   3

Prerequisites:
Corequisites: None
This course provides theory and skills acquisition by utilizing intervention strategies designed to obtain therapeutic information, support recovery, and prevent relapse. Topics include counseling individuals and dysfunctional families, screening instruments, counseling techniques and approaches, recovery and relapse, and special populations. Upon completion, students should be able to discuss issues critical to recovery, identify intervention models, and initiate a procedure culminating in cognitive/behavioral change.

**SAB 220   Group Techniques/
Therapy   2   2   0   3**

Prerequisites: HSE 112
Corequisites: None
This course provides a practical guide to diverse methods of group therapy models used in the specific treatment of substance abuse and addiction. Emphasis is placed on the theory and practice of group therapy models specifically designed to treat the cognitive distortions of addiction and substance abuse. Upon completion, students should be able to skillfully practice the group dynamics and techniques formulated for substance abuse and addiction.

SAB 230   Family Therapy   2   2   0   3

Prerequisites: Successful completion of 12 SHC in the SAB concentration
Corequisites: None
This course covers the theories and models of family systems therapy as designed for families affected by substance abuse and addiction. Emphasis is placed on structures and procedures necessary for successful family therapy, including the needs, types of resistance, and individual family dynamics. Upon completion, students should be able to understand and identify dynamics and patterns unique to families affected by substance abuse and the appropriate model of treatment.

**SAB 240   SAB Issues in
Client Service   3   0   0   3**

Prerequisites: Successful completion of 12 SHC
in the SAB concentration
Corequisites: None
This course introduces systems of professional standards, values, and issues in substance abuse counseling. Topics include confidentiality, assessment of personal values, professional responsibilities, competencies, and ethics relative to multicultural counseling and research. Upon completion, students should be able to understand and discuss multiple ethical issues applicable to counseling and apply various decision-making models to current issues. This course is a unique concentration requirement of the Substance Abuse concentration in the Human Services Technology program.

SRV - Surveying (A40380)

See also CIV Civil Engineering Technology for other course descriptions.

Lecture Lab Credit

SRV 110   Surveying I   2   6   4

Prerequisites: EGR 115 and MAT 121 or MAT 171
Corequisites: None

This course introduces the theory and practice of plane surveying. Topics include measuring distances and angles, differential and profile leveling, compass applications, topography, and mapping. Upon completion, students should be able to use/care for surveying instruments, demonstrate field note techniques, and apply the theory and practice of plane surveying.

SRV 111   Surveying II   2   6   4

Prerequisites: SRV 110
Corequisites: CIV 125

This course introduces route surveying and roadway planning and layout. Topics include simple, compound, reverse, spiral, and vertical curves; geometric design and layout; planning of cross-section and grade line; drainage; earthwork calculations; and mass diagrams. Upon completion, students should be able to calculate and lay out highway curves; prepare roadway plans, profiles, and sections; and perform slope staking.

**SRV 192   Selected Topics in
             Surveying Technology**   1   3   2

Prerequisites: Enrollment in the program or Division
                   Consent
Corequisites: None

This course provides an opportunity to explore topics of current interest in Surveying Technology. Emphasis is placed on subject matter appropriate to Surveying Technology. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

**SRV 198   Seminar in Surveying
             Technology**   2   3   3

Prerequisites: Enrollment in the Surveying
                   Technology Program
Corequisites: None

This course provides an opportunity to explore topics of current interest in Surveying Technology. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

SRV 210   Surveying III   2   6   4

Prerequisites: SRV 110
Corequisites: CIV 125

This course introduces boundary surveying, land partitioning, and calculations of areas. Topics include advanced traverses and adjustments, preparation of survey documents, and other related topics. Upon completion, students should be able to research, survey, and map a boundary.

SRV 220   Surveying Law   2   2   3

Prerequisites: SRV 210
Corequisites: None

This course introduces the law as related to the practice of surveying. Topics include surveyors' responsibilities, deed descriptions, title searches, eminent domain, easements, weight of evidence, riparian rights, and other related topics. Upon completion, students should be able to identify and apply the basic legal aspects associated with the practice of land surveying.

SRV 230   Subdivision Planning   1   6   3

Prerequisites: SRV 111, SRV 240, SRV 250, and CIV 211
Corequisites: None

This course covers the planning aspects of residential subdivisions from analysis of owner and municipal requirements to plat layout and design. Topics include municipal codes, lot sizing, roads, incidental drainage, esthetic considerations, and other related topics. Upon completion, students should be able to prepare a set of subdivision plans.

SRV 240   Topographic / Site Surveying   2   6   4

Prerequisites: SRV 110
Corequisites: None

This course covers topographic, site, and construction surveying. Topics include topographic mapping, earthwork, site planning, construction staking, and other related topics. Upon completion, students should be able to prepare topographic maps and site plans and locate and stake out construction projects.

SRV 250   Advanced Surveying   2   6   4

Prerequisites: SRV 210
Corequisites: None

This course covers advanced topics in surveying. Topics include photogrammetry, astronomical observations, coordinate systems, error theory, GPS, GIS, Public Land System, and other related topics. Upon completion, students should be able to apply advanced techniques to the solution of complex surveying problems.

SRV 260   Field and Office Practices   1   3   2

Prerequisites: Completion of three semesters of
                   the Surveying Technology program
Corequisites: None

This course covers surveying project management, estimating, and responsibilities of surveying personnel. Topics include record-keeping, starting and operating a surveying business, contracts, regulations, taxes, personnel management, and professional ethics. Upon completion, students should be able to understand the requirements of operating a professional land surveying business.

Theatre

(See DRA Drama/Theatre)

TAT - Travel and Tourism

Lecture Lab Credit

**TAT 110   Introduction to Travel
             and Tourism**   3   0   3

Prerequisites:
Corequisites: None

This course provides an overview of the travel and tourism industry. Topics include the history, career opportunities, economic impact, and terminology associated with the travel industry and the roles of travel agencies and suppliers. Upon completion, students should be able to demonstrate a basic understanding of the travel and tourism industry.

TAT 112   Domestic Reservations
and Ticketing   3   2   4

Prerequisites:
Corequisites: None
This course introduces the basic procedures for manual and computer-generated domestic travel documents. Topics include domestic airline scheduling and fares, industry codes, document preparation, and creation of automated reservations. Upon completion, students should be able to prepare manual documents and construct a basic passenger name record using an airline computer reservation system. System One/Amadeus Certification texts/training materials will be the focus of the instruction process including the introduction of the internet as a research tool.

TAT 114   International Reservations
and Ticketing   3   2   4

Prerequisites: TAT 112
Corequisites: None
This course introduces the basics of international travel documentation and procedures. Topics include creating international airline reservations, entry/exit requirements, currencies, industry codes, customs regulations, and related international issues. Upon completion, students should be able to construct an international passenger name record using an airline computer reservation system and understand the intricacies of international travel. System One/Amadeus Certification texts/training materials will be the focus of the instruction process including the introduction of the internet as a research tool.

TAT 116   World Destinations I   3   0   3

Prerequisites:
Corequisites: None
This course covers travel and tourism in the western hemisphere. Emphasis is placed on location and cultural and physical geography as it relates to destination planning. Upon completion, students should be able to counsel clients regarding western hemisphere destinations to meet identified expectations.

TAT 118   World Destinations II   3   0   3

Prerequisites:
Corequisites: None
This course covers travel and tourism in Europe. Emphasis is placed on location and cultural and physical geography as it relates to destination planning. Upon completion, students should be able to counsel clients regarding European destinations to meet identified expectations.

TAT 120   World Destinations III   3   0   3

Prerequisites:
Corequisites: None
This course covers travel and tourism in the Pacific, Asia, and Africa. Emphasis is placed on location and cultural and physical geography as it relates to destination planning. Upon completion, students should be able to counsel clients regarding Pacific, Asian, and African destinations to meet identified expectations.

TAT 122   Cars, Rails and Rooms   3   2   4

Prerequisites: TAT 112
Corequisites: None
This course covers land-based travel arrangements for domestic and international corporate and leisure travelers. Emphasis is placed on making non-airline travel arrangements that include accommodations, rental cars, and rail transportation. Upon completion, students should be able to generate manual

and automated reservations. System One/Amadeus Certification texts/training materials will be the focus of the instruction process including the introduction of the internet as a research tool.

TAT 210   Travel Sales and Marketing   4   0   4

Prerequisites: TAT 110
Corequisites: None
This course introduces various marketing strategies as they relate to entities within the travel and tourism industry. Topics include basic marketing tools such as market research, market planning, advertising, customer service, image building, and sales techniques. Upon completion, students should be able to conduct primary research, develop a marketing plan, understand the role of service as a marketing tool, and demonstrate proficient sales techniques.

TAT 212   Cruise Marketing and Sales   3   0   3

Prerequisites:
Corequisites: None
This course is designed to develop a thorough knowledge of the cruise product. Emphasis is placed on worldwide destination markets, the "cruise experience," differences within the cruise products, and how to use cruise brochures as a sales tool. Upon completion, students should be able to maximize agency profit potential by matching cruise products with identified client needs.

TAT 214   Tour Planning and Escorting   3   0   3

Prerequisites:
Corequisites: None
This course is designed to develop a thorough knowledge of the tour industry, including career opportunities. Topics include pre-packaged and custom-designed tours, comparison of tour products, itinerary planning, cost and pricing, and the role of a tour escort. Upon completion, students should be able to identify types of tours, analyze tour features and benefits, negotiate with suppliers, and understand the function of tour escorting.

TAT 220   Travel Agency Management   3   0   3

Prerequisites:
Corequisites: None
This course covers the primary areas of travel agency operation. Emphasis is placed on budgeting, personnel, leases, customer service, accounting, supplier relationships, pricing strategies, policy and procedures, and requirements for agency approval. Upon completion, students should be able to understand the fundamental areas within travel agency operations, industry trends, and ethical business practices.

TRF - Turfgrass Management

	Lecture	Lab	Credit

TRF 110   Introduction Turfgrass
Culture and Identification   3   2   4

Prerequisites:
Corequisites: None
This course provides an in-depth study of turfgrass. Topics include principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawn applications. Upon completion, students should be able to identify turfgrass species through characteristics and reproductive stages and develop an establishment and maintenance plan for high quality turf areas.

College-Level Credit Course Descriptions

TRF 152   Landscape Maintenance   2   2   3

Prerequisites:
Corequisites: None
This course introduces the tasks of landscape maintenance. Emphasis is placed on lawns, shrubs, trees, flowers, and ground covers. Upon completion, students should be able to maintain a landscape area on a year-round schedule.

WLD - Welding

	Lecture	Lab	Credit

WLD 110   Cutting Processes   1   3   2

Prerequisites:
Corequisites: None
This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.

WLD 111   Oxy-Fuel Welding   1   3   2

Prerequisites:
Corequisites: None
This course introduces the oxy-fuel welding process. Topics include safety, proper equipment setup, and operation of oxy-fuel welding equipment with emphasis on bead application, profile, and discontinuities. Upon completion, students should be able to oxy-fuel weld fillets and grooves on plate and pipe in various positions.

WLD 112   Basic Welding Processes   1   3   2

Prerequisites:
Corequisites: None
This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.

**WLD 115   Shielded Metal Arc Welding
            (SMAW) (Stick) Plate**   2   9   5

Prerequisites:
Corequisites: None
This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with shielded metal arc welding electrodes. Upon completion, students should be able to perform shielded metal arc welding fillet and groove welds on carbon plate with prescribed electrodes.

**WLD 116   Shielded Metal Arc Welding
            (SMAW) (Stick) Plate/Pipe**   1   9   4

Prerequisites: WLD 110, WLD 115
Corequisites: None
This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with shielded metal arc welding electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical, and overhead positions.

**WLD 121   Gas Metal Arc Welding
            (GMAW) (MIG) FCAW/Plate**   2   6   4

Prerequisites:
Corequisites: None
This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

**WLD 122   Gas Tungsten Arc Welding
            (GTAW) (MIG) Plate/Pipe**   1   6   3

Prerequisites: WLD 110, WLD 121
Corequisites: None
This course is designed to enhance skills with the gas metal arc (MIG) welding process. Emphasis is placed on advancing skills with the GMAW process making groove welds on carbon steel plate and pipe in various positions. Upon completion, students should be able to perform groove welds with prescribed electrodes on various joint geometry.

**WLD 131   Gas Tungsten Arc Welding
            (GTAW) (TIG) Plate**   2   6   4

Prerequisites:
Corequisites: None
This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.

**WLD 132   Gas Tungsten Arc Welding
            (GTAW) (TIG) Plate/Pipe**   1   6   3

Prerequisites: WLD 110, WLD 131
Corequisites: None
This course is designed to enhance skills with the gas tungsten arc (TIG) welding process. Topics include setup, joint preparation, and electrode selection with emphasis on manipulative skills in all welding positions on plate and pipe. Upon completion, students should be able to perform GTAW welds with prescribed electrodes and filler materials on various joint geometry.

WLD 141   Symbols & Specifications   2   2   3

Prerequisites:
Corequisites: None
This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.

WLD 145   Thermoplastic Welding   1   3   2

Prerequisites:
Corequisites: None
This course introduces the thermoplastic welding processes and materials identification. Topics include filler material selection, identification, joint design, and equipment setup with emphasis on bead types and applications. Upon completion, students should be able to perform fillet and groove welds using thermoplastic materials.

WLD 151 Fabrication I 2 6 4

Prerequisites: WLD 110, WLD 115, WLD 116,
WLD 131, and WLD 141
Corequisites: None
This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, and the use of fabrication tools and equipment. Upon completion, students should be able to perform layout activities and operate various fabrication and material handling equipment.

WLD 215 SMAW (Stick) Pipe 1 9 4

Prerequisites: WLD 110, WLD 115, or WLD 116
Corequisites: None
This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform SMAW welds to applicable codes on carbon steel pipe with prescribed electrodes in various positions. Upon successful completion of all welding courses in the Welding diploma program and the Welding Technology program, the student in the last semester will be allowed to take an A.W.S. D1.1 Structural Welding Code Test on Mild Steel Pipe in the 6-G position, for a nominal fee, within this course.

WLD 221 Gas GMAW (MIG) Pipe 1 6 3

Prerequisites: WLD 110, WLD 122
Corequisites: None
This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform GMAW welds to applicable codes on pipe with prescribed electrodes in various positions.

**WLD 231 Gas Tungsten Arc Welding
(GTAW) (TIG) Pipe** 1 6 3

Prerequisites: WLD 110, WLD 132
Corequisites: None
This course covers gas tungsten arc welding on pipe. Topics include joint preparation and fit up with emphasis placed on safety, GTAW welding technique, bead application, and joint geometry. Upon completion, students should be able to perform GTAW welds to applicable codes on pipe with prescribed electrodes and filler materials in various pipe positions.

WLD 251 Fabrication II 1 6 3

Prerequisites: WLD 151
Corequisites: None
This course covers advanced fabrication skills. Topics include advanced layout and assembly methods with emphasis on the safe and correct use of fabrication tools and equipment. Upon completion, students should be able to fabricate projects from working drawings.

WLD 261 Certification Practices 1 3 2

Prerequisites: WLD 110, WLD 115, WLD 121, WLD 131, and WLD 141
Corequisites: WLD 116
This course covers certification requirements for industrial welding processes. Topics include techniques and certification requirements for prequalified joint geometry. Upon completion, students should be able to perform welds on carbon steel plate and/or pipe according to applicable codes. Successful completion of prerequisite courses allows students in the Welding Technology Program to take weld tests in accordance with AWS QC 10, and/or AWS D1.1, and/or AWS B2.1.

WLD 262 Inspection and Testing 2 2 3

Prerequisites: WLD 110, WLD 115, WLD 121, WLD 131, WLD 141
Corequisites: WLD 116
This course introduces destructive and non-destructive testing methods. Emphasis is placed on safety, types and methods of testing, and the use of testing equipment and materials. Upon completion, students should be able to understand and/or perform a variety of destructive and non-destructive testing processes.

WLD 265 Automated Welding/Cutting 2 6 4

Prerequisites: CIS 110, WLD 110 and WLD 121
Corequisites: None
This course introduces automated welding equipment and processes. Topics include setup, programming, and operation of automated welding and cutting equipment. Upon completion, students should be able to set up, program, and operate automated welding and cutting equipment.
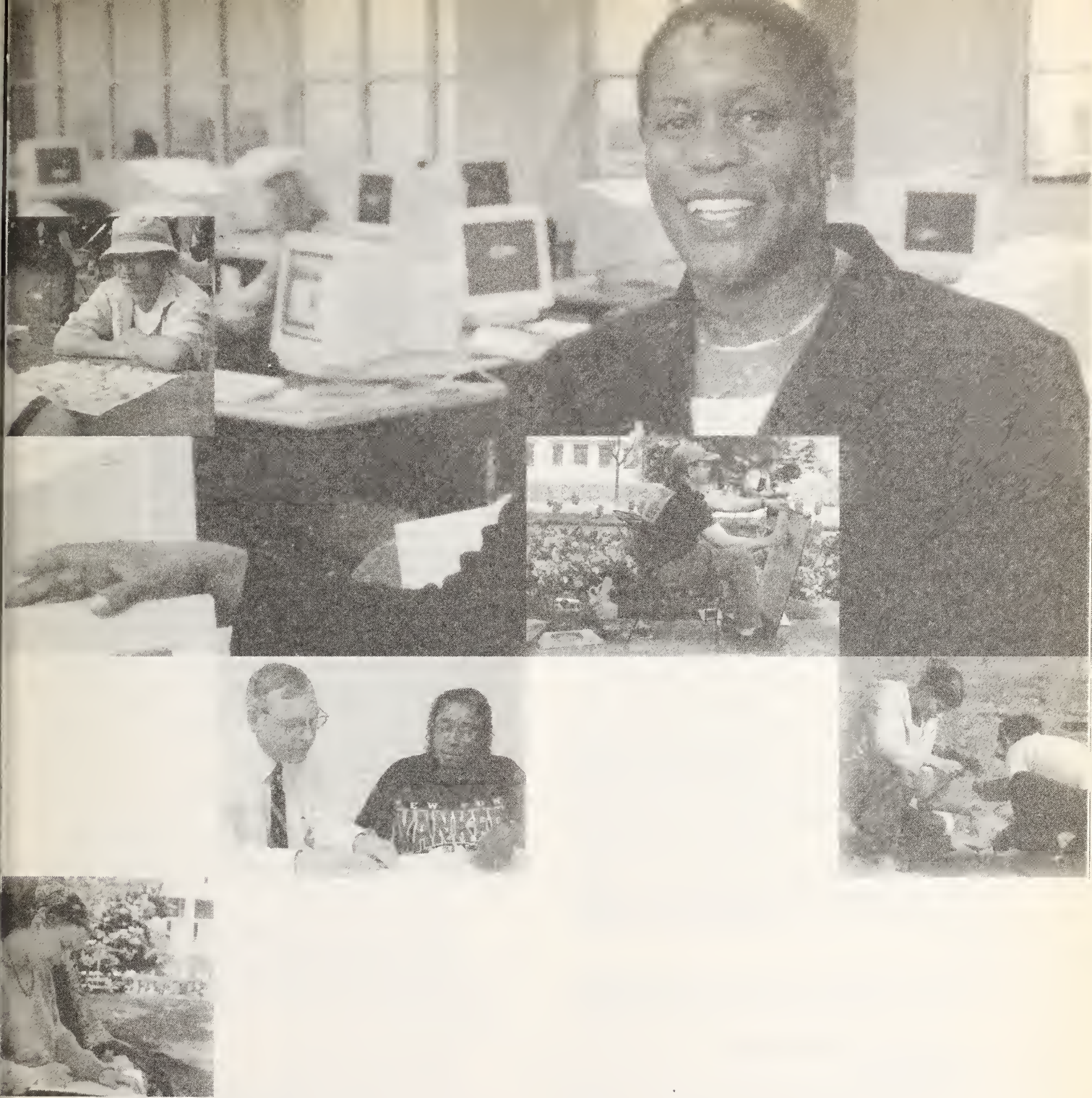
…Corporate and Continuing Education

Corporate and Continuing Education
(704) 330-6600

Corporate and Continuing Education provides courses and programs for work force preparedness and community service which fall into two categories: 1) those customized for a specific business's or industry's work force; 2) those that cater to an individual's career attainment, upgrade or enrichment.

Courses and programs often lead to a professional designation, continuing education credits, or certification.

The majority of continuing education classes are listed in a Class Schedule published each academic term.

Corporate and Continuing Education services are marketed via two separate divisions: the CPCC Corporate Training Center, and Continuing Education.

The CPCC Corporate Training Center: (704) 330-4053

info@cpcctraining.org
http://www.cpcctraining.org

In today's competitive business environment, a highly-skilled and productive workforce is a company's greatest asset. Let CPCC's Corporate Training Center assist you or your business in preparing for the information-driven workplace of the 21st century.

Working with CPCC's extensive network of instructors and training facilities throughout Mecklenburg County, the Corporate Training Center can create course content, class length, and location solutions which meet the specific needs of you or your employees. If you don't want your employees going off-site for instruction, the Center can bring instructors and training materials to a classroom at any of your company's facilities within Mecklenburg County.

Via the use of pre- and post-assessment tools, the Corporate Training Center can tailor all product offerings to meet the specific training needs of you or your business. The result: more productive employees, and a competitive advantage for your business.

To learn more about the CPCC Corporate Training Center, and how it can help you or your company achieve competitive advantage, please call one of the phone numbers listed below:

- **Computer Applications Training**
  (704) 330-4215
  Program offerings: Microsoft Windows, Microsoft Office (Word, Excel, Access, PowerPoint), Lotus, Internet, FrontPage, Quicken, Quickbooks, QuarkXpress, Adobe Illustrator, Adobe Photoshop, Adobe PageMaker, Corel Draw, Macromedia Freehand.

- **Computer Networking Hardware**
  (704) 330-6213
  Program offerings: Microsoft Certified Engineer (Microsoft Windows 95/98/NT, TCP/IP, Microsoft SQL Server, Microsoft Internet Information Server), A+ Certification, DOS, Certified Novell Administrator and Engineer (Netware 4, 5), others on demand.

- **Computer Programming**
  (704) 330-5075
  Program offerings: Visual Basic, C++, Java, SQL, Power-Builder, COBOL, CICS, others on demand.

- **Instructional Design and Instructional Assessment**
  (704) 330-4124
  Program offerings: Instructional Design, Job Analysis, Employee Assessment

- **International Training**
  (704) 330-4054 or 6775
  Program offerings: Letters of Credit, Export Outreach
  See Small Business Center

- **Management and Professional Development**
  (704) 330-4123
  Program offerings: Zenger-Miller Frontline Leadership: Working, Team Effectiveness, Team Leadership and Workforce 2000. Zig Ziglar: Strategies for Success, Customer Service, and Selling!, Conflict Resolution, Management Diversity, Project Management, Kaset International Customer Service

- **Manufacturing And Technical Skills**
  (704) 330-6464
  Program offerings: Customized Blueprint Reading and Quality Inspection Training, Welding, Shop Math, CNC Programming and Operations, Maintenance Training, Shop Practices, and Operations Management. Certifications: APICS, NAPM's Certified Purchasing Manager and Certified Management Accountant, Total Quality Management, Statistical Process Control, Problem Solving Techniques, Data Collection and Analysis, Improvement Team Methodologies

- **New & Expanding Industry**
  (704) 330-6471
  This program provides complete training services for new and expanding industries in a special state-supported format. Focused Industrial Training is available to local manufacturing companies to provide specialized training in an affordable manner. For more information, call (704) 330-6464.

- **Premier Autodesk Authorized Training Center**
  (704) 330-5075; (704) 330-4136
  Program offerings: AutoCAD, 3D Studio MAX, 3D Studio VIZ, AutoLISP, AutoCAD Map, AutoDesk World, Mechanical Desktop, Softdesk, Architectural Desktop, Land Development Desktop, others on demand

- **Small Business Center**
  (704) 330-4054 or 6775
  Program offerings: **Starting and Operating the Small Business:** Getting Started with QuickBooks® Pro; Mastering Payroll With QuickBooks® Pro; Mastering Estimating, Time Tracking & Job Costing With QuickBooks® Pro; Mastering Taxes — Sales & Otherwise with QuickBooks® Pro; Mastering Purchase Orders & Inventory Management With QuickBooks® Pro; Mastering On-Line Banking With QuickBooks® Pro; Business Basics of Starting & Operating A Small Business; Financial Management and Record-Keeping for Small Business; Small Business Owners Program; Free Library Seminars. **International Business:** Export Training; Letters of Credit — Principles and Documentation. **Individual Small Business Consulting and Counseling.**

• Workplace Basic Skills
(704) 330-6714
Program offerings: Math Upgrading, Reading Improvement, General Educational Development (GED) Preparation, Writing Improvement, Upgrading Your Grammar, English As A Second Language (ESL) - Beginning, Intermediate, and Advanced, Math For ESL Students, Citizenship

• Special Training Services
(704) 330-6464
Program offerings: Focused Industrial Training is a special state program that delivers industrial-related training to very small groups of workers.

Continuing Education
(704) 330-6600

info@cpcctraining.org
http://www.continuinged.cpcctraining.org

Continuing Education programs contribute to the civic, cultural, intellectual, professional, personal, and social enrichment of the Charlotte-Mecklenburg area. They assist adults in developing new skills and in upgrading existing skills. By using the intellectual and cultural resources of the College and the community, these programs improve the quality of life in this region and enrich individual lives.

Continuing Education programs are coordinated with local schools, churches, hospitals, agencies and associations. The program offerings and services are available on CPCC's central campus and at numerous other locations.

Many of these courses can be customized and taught on-site at a company's location or at CPCC sites as training for business and industry. To learn more, call (704) 330-4053.

New Courses are added annually.

• APICS Review and Certification (C.P.I.M.)
(704) 330-4123
For 25 years APICS' Certified in Production and Inventory Management (CPIM) has helped individuals and their organizations become more productive and competitive. More than 57,000 professionals have earned the CPIM designations. This certification allows you to demonstrate your increased production and inventory management technology knowledge, learn to predict outcomes more accurately, and apply actions to achieve results.

To achieve certification, you must pass 6 of the 7 CPIM exams.

Courses:
Basics of Supply Chain Management
Inventory Management
Material Capacity and Requirement Planning
Production Activity Control
Just-in-Time
Systems and Technologies
Master Planning

• Arts and Crafts:
(704) 330-4213
Program offerings: Stained Glass, Drawing, Watercolor, Oil / Acrylic Painting

• Career Advancement:
(704) 330-6969
Program offerings: HRD Employability Skills, Customer Service, Career Management, 10-Key Skills

CPCC Construction Institute:

• Building Contractor Education and Licensure
(704) 330-6575, 330-6299
Program offerings: Building/Commercial Contractors Exam Review; Home Construction Methods and Details; Residential Blueprint Reading and Estimating; Residential Construction Management; Residential Contractors Exam Review.

• Apprenticeship Training — Electrical, Fire Sprinkler Fitter, Plumbing (704) 330-6575, 330-6299

• Construction Trade Skills
(704) 330-6575, 330-6299
Program offerings: Brick Masonry; Carpentry I; Carpentry II; Residential Framing.
• Brick Masonry Training: A critical shortage of brick masons exists in Charlotte. This one semester course provides full-time attendees the skills to become an apprentice brick mason with a chance to advance. Graduates are assisted in finding employment.
• Residential Framing: This six-month, full-time program trains participants to perform all of the skilled tasks necessary to erect wood frame dwelling and its Free! With the assistance of local builders, students are provided registration fees, textbooks, and a free set of hand tools. Much of the training is in the field so that participants receive lots of practical, hands-on training experience. Graduates find employment in Charlotee's booming residential construction industry.

• HVAC Installation Training I, II
(704) 330-6575, 330-6299

• Electrical Code Courses
(704) 330-6575, 330-6299
Program offerings: National Electric Code I, II, & III.

• Electrical Contractor/Journeyman Licensure
(704) 330-6575, 330-6299
Program offerings: Electrical Contractors Exam Review.

• Home Inspection Licensing and Continuing Education
(704) 330-6575, 330-6299

• Certified Management Accountant Review (CMA)
(704) 330-4123
The CMA is an internationally recognized designation awarded to management accountants who successfully complete the CMA examination as well as various education and experience requirements. Since 1972, over 18,000 accountants have achieved CMA certification since it's inception in 1972.

To achieve certification you will need a combination of education, experience, coursework, and pass each of four exams. CPA's can waive module 2.

Courses:
Module 1: Economics, Finance, and Management
Module 2: Financial Accounting and Reporting
Module 3: Managing, reporting, and Analyzing
Module 4: Decision Analysis & Information Systems

- **Certified Purchasing Manager Review (C.P.M.)**
  (704) 330-4123

Since 1974, over 26,000 professionals have received National Association of Purchasing Manager's CPM certification. Certification helps define both the purchasing profession and the professional. The CPM focuses on the managerial, administrative, strategic, and sometimes-tactical aspects of the purchasing function.

To achieve certification you will need a combination of education, experience, coursework, and pass each of four exams.

Courses:
Module 1:   Purchasing and Sourcing
Module 2:   Administration
Module 3:   Supply
Module 4:   Critical Issues in Supply Chain Management

- **Cooking:**
  (704) 330-4213

Program offerings: Cake Decorating, Chinese Cooking, Low-Fat Cooking.

- **Dance:**
  (704) 330-4213

Program offerings: Shag, Country Line Dancing.

- **Financial Planning:**
  (704) 330-4213

Program offerings: Basics of Investing, Investments and Financial Planning, How to Live Debt Free.

- **Flower Arranging/Horticulture:**
  (704) 330-4213

Program offerings: Flower Arranging, Landscape Design, Gardening Techniques.

- **Health and Community Services:**
  (704) 330-4056

Training programs and continuing education units (CEU) offered:

- **Nursing Secretary**
- **Medical Transcription**
- **Medical Reimbursement Specialist**
- **Medical Terminology**
- **Medical Coding**
- **Medical Keyboarding**
- **Medical Office Administrative Procedures**

- **Patient Care Technician**
- **Nurse Aide I**
- **Nurse Aide II**
- **Nurse Aide I Competency Evaluation**
- **Phlebotomy**
- **EKG**
- **Emergency Medical Technician (EMT)**
- **Paramedic**
- **RN Refresher**
- **Advanced Cardiac life Support (ACLS)**
- **Advanced Cardiac Life Support — Instructor**
- **Pediatric Advanced Life Support (PALS)**
- **Pediatric Advanced Life Support — Instructor**
- **Neonatal Resuscitation Program — (NRP)**
- **Pharmacy Technology**
- **Sleep Technologist**

- **Gerontology — 330-6624**
- **Activity Director for Nursing Homes/Assisted Living**
- **Certified Dietary Manager**
- **Coronal polishing for Dental Assistants II**
- **Radiology for Dental Assistants**
- **Introduction to Dental Assisting**

- **CPR**
- **CPR Instructor**
- **First Aid**

- **Health and Human Services Workshops**

- **Safety**
- **Environmental**
- **CFC**
- **Wastewater Treatment**
- **OSHA Training**

- **Human Resources Development (HRD)**
  (704) 330-6969

Program offerings: Bank Teller Training Program, Job Seeking Skills, Ten Key/CRT Training Program, CRT/Customer Service.

- **Insurance (Continuing Education):**
  (704) 330-6420

Approved prelicensing courses are offered for persons seeking these NC Department of Insurance licenses: Life and Health Agent, Property and Liability Agent, Medicare Supplement/Long-Term Care Agent, Claims Adjuster.

Preparatory courses are offered for National Association of Security Dealers (NASD) Series 6, 7, and 63 license exams.

Agents and adjuster license examination review courses are available for those who want a short review before sitting for state exams.

Courses approved by the Department of Insurance are offered to agents and adjusters to meet their continuing education requirements each year.

The Department of Insurance has approved the following CPCC courses for Continuing Education Credit: Business Basic Insurance and Planning, Life and Health; Retirement Planning and Estate Planning; Basic Hospital Expense Policy and Fundamentals of Disability Income; Workers' Compensation and Employers' Liability Policy and Risk; Fire Investigation for Claims Personnel; Service and Its Effects on Errors and Omissions; Introduction to Law and Agency Law; Insurance Law I; Insurance Law II; Consumer Protection; Ethics; Agent's and Broker's Duties and Responsibilities; Comprehensive Review of Life and Health; Social Security and Medicare; Insuring High Value Personal Property; Flood Insurance Coverages, Fire Inspection Survey Training for Agents.

Additional offerings are approved each year. Students cannot repeat a Department of Insurance-approved course more than once every three years.

- **Interior Decorating:**
  (704) 330-4213

Program offerings: Interior Decorating I & II, Faux Finish.

- **International Business**
  (704) 330-6900

Program offerings: Fundamentals of Importing, Letters of Credit, Export Outreach and International Marketing.

• Language Institute:
(704) 3304211
Program offerings: Beginning French, Russian, German, Spanish, Italian, Spanish for Healthcare Professionals, Spanish for Construction Industry.

• Management/Professional Development:
(704) 330-4211
Program offerings: Business Writing, Communication Skills, Time Management and Stress Management.

• Motorcycle Riding And Street Skills
(704) 330-4213

• Manufacturing Outreach
(704) 330-6464

• Notary Public:
(704) 330-4211

• North Carolina Safety and Emissions Inspection Certification
(704) 330-6299
Program offerings: Safety Inspection Initial Certification, Emissions Inspection Initial Certification, Safety Inspection Recertification, Emissions Inspection Recertification.

• Office Skills:
(704) 330-4211
Program offerings: Proofamatics, Number Skills, Business Writing, Punctuation and Grammar.

• Outplacement Training
(704) 330-6969
Program offerings: Outplacement Training Services for Businesses and Individuals.

• Computer Applications Training
(704) 330-4215
Program offerings: Microsoft Windows, Microsoft Office (Word, Excel, Access, PowerPoint), Lotus, Internet, FrontPage, Quicken, Quickbooks, QuarkXpress, Adobe Illustrator, Adobe Photoshop, Adobe PageMaker, Corel Draw, Macromedia Freehand

• Professional Development:
(704) 330-4211
Program offerings: Punctuation and Grammar, Business Writing, Communication Skills, Workshops for Women, Time Management and Stress Management.

• Real Estate (Continuing Education):
(704) 330-6493, 330-6692
The Real Estate program offers pre-licensing education courses designed by the N.C. Real Estate Commission and N.C. Appraisal Board; conducts mandatory Continuing Education courses specified by both; and offers other real estate and related courses such as Property Management, Mortgage Loan Processing, and Professional Real Estate Assistant training. Courses for obtaining a license are generally specified in lecture format by the N.C. Real Estate Commission and N.C. Appraisal Board. Other courses are open to other formats as design and methods are determined. Evening classes last 3 – 4 hours. Weekend classes last 6 hours plus lunch break of one hour.
The following courses are designed to meet the requirements for the mandatory continuing education required by the N.C. Real Estate Commission to remain on active status: Mandatory

Real Estate Update, Residential Property Appraisal, Land Use Controls and Effect on Market Value, Fair Housing in the 90s, Risk Management, Environmental Considerations in Real Estate, and Introduction to Commercial Real Estate.

• Recreation:
(704) 330-4213
Program offerings: Tai Chi, Nai Fitness.

• Sewing:
(704) 330-4213
Program offerings: Sewing I & II, Quilting, Upholstery.

• Small Business Center:
(704) 330-6900
Program offerings: Financial Management & Record Keeping for Small Business, Business Basics for Starting and Operating a Small Business, Tax Workshops, Sales and Marketing Workshops, QuickBooks Pro 4.0 and Pro 5.0 for Windows (a computer program for small business).

• Teacher Education Training:
(704) 330-4211
Program offerings: Stress and Time Management for Teachers, Effective Teaching, Microsoft Works for Teachers, ClarisWorks for Teachers, Internet for Teachers, Characteristics and Identification of Gifted Students, Learning Styles, Unit Plans, and Introduction to Multiple Intelligence.

• Woodworking:
(704) 330-6491
Program offerings: Beginning Woodworking Combination, Intermediate Woodworking Combination.

• Writers' Series
(704) 330-4213
Program offerings: Creative Writing, Freelance Journalism, Poetry, A Writer's Guide to Successful Publication, Freeing Your Creative Self.

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Corporate and Continuing Education
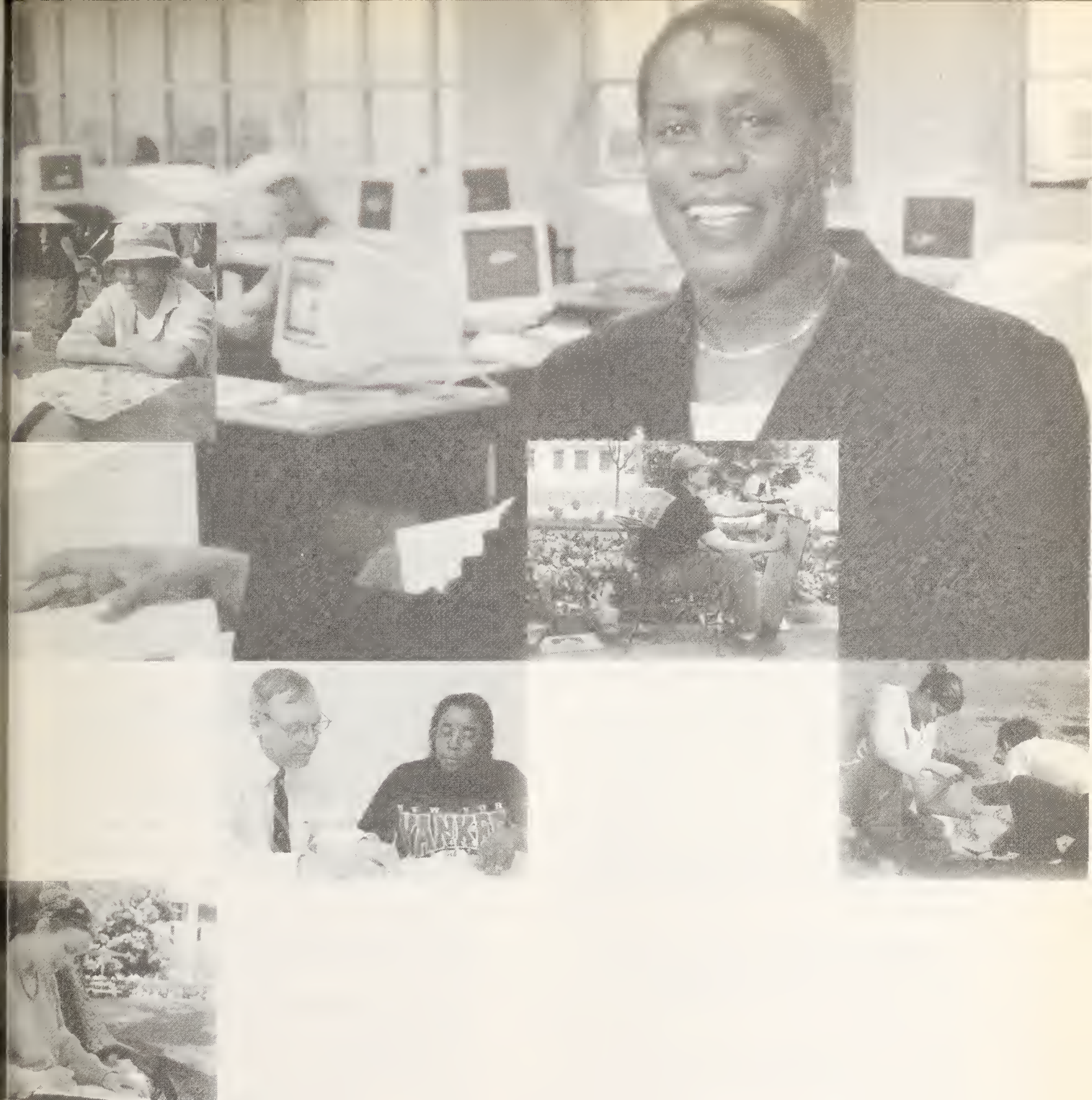
Faculty and Professional Staff

Faculty and Professional Staff Full Time

ADAMS, FREDERICK P., Assistant Vice President for Operations
B.B.A., 1971 (Campbell College).

ADAMS, PAT, LD Counselor, Services for Students with
disAbilities
B.A., 1977 (Bennett College); M.Ed., 1981 (Winthrop College).

ALBANESE, J. MICHAEL, Instructor, Mathematics
B.S., 1975 (West Virginia Institute of Technology); M.M., 1977
(University of Tennessee). Additional graduate study at West
Virginia University and West Virginia College of Graduate
Studies.

ALBRIGHT, JUDY, Instructor, Accounting
B.S., 1971; M.A., 1972 (Appalachian State University).

ALVAREZ, JOSEPH ANTHONY, Instructor, English, Literature
and Languages
B.A., 1968; M.A., 1971 (University of Florida); B.S., 1981
(University of North Carolina at Charlotte).

AMBROSE, O. DONALD, Director, Distance Learning Services
A.B., 1964 (University of North Carolina at Chapel Hill); M.A.,
1985 (Appalachian State University).

ANDERSON, BRIAN, Instructor, English, Literature and
Languages
B.A., 1988; M.A., 1990 (Appalachian State University).

ANDERSON, BOB, Director of Auxiliary Services
B.A., 1970 (Valdosta State College). Additional study at
Central Piedmont Community College.

APGAR, DONNA G., Multimedia Language Lab Coordinator.
English, Literature and Languages
B.A., 1964 (Tufts University); M.A., 1972 (Middlebury
College).

ARBONA, MARIA FRANCISCA, Instructor, Behavioral and
Social Sciences
B.A., 1972 (University of the Sacred Heart, Puerto Rico); M.S.,
1974; Psy.D., 1983 (Caribbean Center for Advanced Studies,
Puerto Rico). North Carolina Licensed Professional Counselor.
Nationally Certified Counselor, Registered Licensed Psycholo-
gist, Puerto Rico.

AREY, NORMA-JEAN, Instructor, Adult Basic Education
A.B., 1973 (University of North Carolina at Chapel Hill);
M.H.D.L., 1985 (University of North Carolina at
Charlotte).Nationally Certified Counselor. North Carolina
Registered Practicing Counselor.

ARCHER, ROBERT R., Instructor, GM-ASEP Coordinator,
Transport Systems Technologies
ASE Master Automotive Technician. Additional study:
University of Akron.

ARMENTROUT, BRENDA BORROR, Instructor, Visual and
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(West Virginia University).

ARROYO, MARGARET A., Instructor, Nursing and Human
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B.S.N., 1966 (Temple University); M.A., Psychiatric
Nursing, 1971 (New York University).

ARTIS, WILLIE MILTON, Instructor, Advancement Studies
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(University of North Carolina at Charlotte).

ATTREY, JASPAL S. "Jessie", Instructor, Engineering
Technologies
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University); M.S., 1975 (Drexel University); B.S.E.E., 1985
(University of Tennessee). Additional study at the University of
Tennessee.

BACK, DIANN P., Director, Ruth G. Shaw Academic Learning
Center
B.A., 1968 (University of Arkansas); M.A.T., 1973 (Harding
College). Additional study at University of North Carolina at
Greensboro.

BAILEY, JAMES H., Senior Production Specialist, Educational
Networks
B.A., 1974 (University of North Carolina at Chapel Hill).
Additional study at the University of North Carolina at
Charlotte.

BAIN, DAVID W., Instructional Lab Facilitator, Academic
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B.S., 1982 (University of North Carolina at Chapel Hill); M.M.,
1997 (Winthrop University).

BAKER, DOROTHY H., Instructor, Visual and
Performing Arts
B.F.A., 1976 (Eastern Michigan University); M.F.A., 1981
(Ohio State University). Additional study at State University of
New York at Brockport and Penland School of Crafts.

BAKER, MONA H., Workplace Basic Skills Coordinator,
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(Winthrop University)

BAKER, READE, Director of Development, CPCC Foundation
A.A., 1974 (Central Piedmont Community College); B.A.,
1976 (University of North Carolina at Charlotte); Certified
Fund Raising Executive CFRE, 1992 (National Society of Fund
Raising Executives).

BALLARD, CARL N., Division Director, Business and
Accounting
B.S., 1969; M.A., 1970 (Appalachian State University).

BALLARD, SARA WARREN, Instructor, Computer and Office
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BASS, ANTHONY E., Instructor, Behavioral and Social Sciences
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(Northwestern University). Licensed Psychological Associate.

BAZAN, JAMES A., Instructor, Behavioral and Social Sciences
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Assistant.

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Systems
B.S., 1963 (University of Detroit); M.S., 1973 (State University
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BENNETT, HENRY W., Instructor, Transport Systems
Technologies
B.A., 1971 (Paine College).

BENTLEY, WENDY, Instructor, English, Literature, and Languages
B.S., 1985 (Appalachian State University); M.A., 1990 (University of North Carolina at Charlotte).

BILAL, BRENDA, Instructor, Advancement Studies
B.S., 1972 (Fayetteville State University); M.A., 1984 (University of North Carolina at Charlotte); Ph.D., 1996 (University of Texas at Austin).

BLACKWELDER, BRENDA CAROLE, Instructor, Mathematics and Sciences
B.A., 1963 (Queens College); M.A., 1965 (Wake Forest University); Ph.D., 1974 (University of South Carolina). Additional graduate study at Duke University and University of South Florida. Certificate, Secondary Education Biology and Art.

BLALOCK, HOYLE LEE, JR., Division Director, Computer and Office Information Systems
B.S., 1961; M.Ed., 1966 (North Carolina State University at Raleigh). Professional Certificate in Data Processing.

BODACK, TAMMY M., Division Director, Manufacturing Outreach, Corporate and Continuing Education,
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BOLL, ROBERT G., Division Director, Hospitality Education
B.A., 1969 (University of San Francisco). Food Service Management Professional, Certified Food Service Executive.

BOLLINGER, AMY KING, Instructor, Visual and Performing Arts
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BOST, TED R., JR., Instructor, Transport Systems Technologies
B.S., 1996 (Western Carolina University). Study at University of North Carolina at Charlotte and Western Carolina University. Shop Owner, 1973-85. ASE Master Automotive Technician.

BOSTIC, ALICE E., Coordinator, Compensatory Education
B.S., 1960 (Baldwin Wallace College); M.Ed., 1964 (Kent State University). Additional study at University of Missouri.

BOSTIC, BARBARA, Allied Health, Corporate and Continuing Education
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BOUKOUVALAS, COSTAS S., Director, Services for Students with disAbilities
A.A., 1960 (Warren Wilson College); B.S., 1963; M.A., 1970 (North Carolina State University). Additional graduate study at North Carolina State University.

BOUTON, DEBORAH THIGPEN, Director, Education Support Services - South Campus
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BOWEN, AMY, Instructor, Hospitality Education
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BRAITHWAITE, SUSAN, Counselor, Counseling and Advisement
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BRANCH, ARLIAH VANN, Counselor, MultiSkills Center
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BRASWELL, MARTHA SANDERS, Instrucstor, Architectural Technology
Bachelor of Architecture, 1961 (North Carolina State University).

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B.S., 1960 (Towson State University).

BRIDGES, ROBERT S, Music Librarian, Visual and Performing Arts
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BRIGGS, PHILIP, Instructor, Technical Careers
A.G.E., 1994; A.A., 1996 (Central Piedmont Community); B.S., 1997 Western Carolina University. Unlimited Electrical Contractors License.

BRIGGS, STEPHANY, Instructor, Nursing and Human Services
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BROCKMAN, H. L., Instructor, Economics
B.B.A., 1947 (Southern Methodist University); M.B.A., 1948 (Louisiana State University).

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B.A., 1977 (Gallaudet University); M.A., 1978 (New York University).

BROWN, DANA ELAYNE, Instructor, Mathematics and Sciences
B.S., 1995, Biology (Appalachian State University); M.S., Biology (Wake Forest University).

BROWN, DAVID A., Instructor, Health and Physical Education and Recreation
B.S., 1973 (University of Massachusetts); M.S., 1982 (Mankato State University).

BROWN, EMMA W., Associate Dean for Counseling and Advisement
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BRYAN, NANCY SHEARIN, Coordinator, Technology Learning Center
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Basic Law Enforcement Training. Sworn Deputy Sheriff; Rowan County Sheriff's office (part-time).

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CANNON, ALICE F., Director, Registration Services, Student Records, Admissions
Diploma, 1974 (Kings College).

CASSEN, THOMAS, Instructor, Computer Office and Information Systems
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CATES, DIANNE S., Instructor, Advancement Studies
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CATHEY, DENISE D., Counselor
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CHAMBERS, KATHERINE MERRIT, Instructor, Business and Accounting
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CHERNEGA, JANET B., Dean, Health and Community Services
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B.A., 1967 (North Carolina Wesleyan College); M.A., 1968 (Appalachian State University). Licensed Psychological Associate. Licensed Hypnotherapist.

CHESSER, JOEL F., Instructor, Public Safety
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CHILDERS, JOHNNIE, ASL Laboratory Coordinator. English, Literature and Languages
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CHILDRESS, FAYE B., Instructor, Mathematics and Sciences
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CHOWDHURY, MEERA, Instructional Lab Facilitator, Computer and Office Information System
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CLASSENS, ANVER E., Instructor, Technical Careers
B.A., 1978 (LeTourneau University); M.S., 1995 (Marshall University Graduate College). AWS Certified Welding Inspector.

CLAY, SAVANNAH H., Instructor, Business and Accounting
B.S., 1970 (Alabama A.&M. University); M.S., 1974 (State University of NY at Binghamton).

CLIFFORD, NANCY M., Coordinator, Human Resources Development
R.N., 1960 Mercy School of Nursing); A.A.S., 1960 (Sacred Heart College); B.S., 1997 (Pfeiffer University).

COFFIN, SONIA K., Reference Librarian, Library Services
B.A., 1962 (University of Alberta, Canada); M.A., 1988 (University of North Carolina at Charlotte); MLIS (Master of Library and Information Studies), 1998 (University of North Carolina at Greensboro). Additional graduate study: University of Oregon, 1964 - 1965.

COGGINS, BOB G., Instructor, Public Safety
B.S., 1967 (Pembroke State University); M.Ed., 1968 (West Chester State College); Ph.D., 1970 (University of New Mexico).

COHN, MARIA E., Instructor, English Literature, and Languages
B.A., 1991 University of North Carolina at Charlotte); M.A., 1995 (Winthrop University).

COLLINS, MARY BETH , Assistant to the President
B.A., 1969 (Wittenberg University); M.S., 1972 (Purdue University).

COLQUITT, W. ROY, Instructor, English, Literature and Languages
B.A., 1967 (North Carolina State University); M.A., 1969 (University of North Carolina, at Chapel Hill); M.Ed., 1975; Ph.D., 1979 (Duke University).

CONE, JOHN A., Instructor, Art Gallery Manager
Visual and Performing Arts
B. A., 1978 (Presbyterian College); M.A., 1986 (University of Georgia); Ph.D., 1998 (Florida State University).

CONELLEY, WILLIAM R., Assessment/Retention Specialist, G.E.D.

COOPER, CANDACE C., Assistant Financial Aid Director, Financial Aid/Veteran Affairs
B.S., 1986 (Georgia College).

CORDER, HENRY D., Instructor, Business and Accounting
B.S., 1979 (University of Tennessee). Additional study at Liberty University.

COVINGTON, TOM, Instructional Developer / Staff Photographer, College Without Walls / Distance Learning.
B. A., 1968 (University of Pennsylvania); M.A., 1998 (University of North Carolina at Charlotte).

COX, CHARLES A., III, Senior Programmer Analyst
A.A.S., 1979 (Central Piedmont Community College); A.A., 1990 (Central Piedmont Community College)

CRAIG, ROBERT, Instructor, Visual and Performing Arts
B.A., 1986 (University of Science and Arts at Oklahoma); M.Ed., 1991 (University of North Carolina at Greensboro).

CRAWFORD, GAYLE, Reference, Library Services
A.B., 1968 (Johnson C. Smith University). Additional study at Appalachian State University.

CRAWFORD, JOYCE D., Instructor, Computer and Office Information Systems
B.S., 1962 (Barber Scotia College); M.A.T., 1975 (Winthrop College). Additional study at University of North Carolina at Greensboro.

CRAWFORD, MONICA P., Instructor, Adult High School
B.A., 1992 (University of North Carolina at Greensboro).

CREEK, MACY A., Instructor, English , Literature and Languages
B.A., 1964 (Westminster College); M.A., 1969 (University of Missouri). Additional graduate study at University of Pittsburgh, Oxford University, and the University of North Carolina at Greensboro.

CUDD, DENNIS, North Center Library Services
A.A., 1967 (Central Piedmont Community College); B.A., 1972 (University of North Carolina at Charlotte).

DAVIS, D. GERRY, Instructor, Computer and Office Information Systems
A.A.S., 1967 (Gaston Technical College); B.E.T., 1975 (University of North Carolina at Charlotte); M.Div., 1980 (Southeastern Baptist Theological Seminary). Additional graduate study at Southern Baptist Theological Seminary.

DAVIS, JAMES, Insurance/Benefits Specialist
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DAWKINS, RITA RORIE, Counselor
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DEADWYLER, MAJORIE H., Instructor, Health Sciences
A.A.S., 1972 (Central Piedmont Community College); B.A.,
1975 (University of North Carolina at Charlotte). Additional
study at Southern Methodist University. Dental Hygiene
License in North Carolina and South Carolina.

DECATSYE, SUSAN M., Criminal Justice Training Coordinator
and BLET School Director, Public Safety
B.S., 1990 (University of North Carolina at Charlotte).

DEPAULA, WILLIAM, Special Projects Coordinator,
Admissions and I.D. Room
LL.B., 1963 (Candido Mendes Law School of Rio de Janeiro,
Brazil); M.A., 1985 (Winthrop College).

DEPAULA, ZILDA SOUZA, Instructor, English as a Foreign
Language
B.A., 1963 (University of Brazil); M.A.T., 1967 (Brazil U.S.
English Language Institute); M.A., 1983 (Winthrop College).

DIBRELL, BETTIE, Instructor, Nursing and Human Services
B.A., 1968 (Appalachian State University); M.Ed., 1978
(University of North Carolina at Charlotte).Certified Clinical
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Licensed Professional Counselor; Certified Clinical Addiction
Specialist.

DILLARD, GERALDINE, Instructor, Behavioral and Social
Sciences
B.A., 1971 (University of North Carolina at Charlotte);
M.A., 1972 (Atlanta University). Additional study at Duke
University.

DILLON, JULIE E., Instructor, Behavioral and Social Sciences
B.A., 1994 (University of North Carolina at Charlotte); M.A.,
1996 (Appalachian State University). Additional graduate study
at East Carolina University.

DIXON, RUSTY., Production Specialist, Distance Learning
Diploma in Teleproduction (York Technical Institute); A.G.E.,
1998 (Central Piedmont Community College)

DORFER, JAY P., Instructor, Engineering Technologies
B.S., 1961 (University of Oregon); M.B.A., 1980 (Chapman
College); Master Architecture, 1984, (University of Washing-
ton). Registered Architect North Carolina, Florida, NCARB.

DRUMM, KATHY H., Executive Vice President for Administra-
tive Services
B.A., 1975 (Belmont Abbey); M.B.A., 1980 (University of
North Carolina at Charlotte). Certified Public Accountant.

DUKE, CHRISTINE M., Instructor, English, Literature and
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B.A., 1987; M.A., 1994 (State University of New York
at Buffalo).

DUNCAN, JOHN M., Division Director, Construction Trades
Institute
B.A., 1966 (St. Andrews Presbyterian College); M.Ed., 1974
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DUNLAP, BRUCE E., Instructional Lab Facilitator, Business and
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B.S., 1987 (Winston-Salem State University). Graduate study at
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DUNLAP, LAURA J., Instructional Lab Facilitator, Computer and
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tional study at University of North Carolina at Charlotte and
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Additional studies at Central Piedmont Community College,
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industry sponsored courses.

EDMONDS, WINSTON L., Sr., Director, Equal Opportunity and
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B.A., 1968 (Virginia State College); M.Ed., 1976 (University of
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ENGLEBERT, PAMELA J., Media Production Specialist, Library
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ERVIN, JANICE C., Instructor, Advancement Studies
B.S., 1973 (North Carolina Central University); M.Ed., 1991
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ESANCY, MICHELLE K., Instructor, Mathematics and Sciences
B.A., 1981 (University of North Carolina at Wilmington); B.S.,
1982 (University of North Carolina at Wilmington); Textile
Chemistry; M.S., 1985 (North Carolina State University).
Additional study at NC State University.

FITZGERALD, DUREE J., Senior Interpreter, Services for Stu-
dents with disAbilities
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ally Certified Interpreter, Comprehensive Skills Certificate.

FLANAGAN, J. DAVID, Instructor, Behavioral and Social
Sciences
B.A., 1963; M.A., 1969 (University of Florida).

FOLEY, RODNEY I., Instructor, Construction Trades Institute
B.S., 1984 (Kent State University); Master Certification in
Residential and Commercial Carpentry, 1990, Associated Gen-
eral Contractors of America.

FORRESTER, EILEEN B.,Division Director, Nursing and Human
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B.S.N., 1975 (Molloy College); M.A., 1979; Ed.M., 1979
(Columbia University).

FORSTER, WILLIAM, Instructor, Mathematics and Sciences
B.S.E.E., 1968 (Penn State University); M.S., Applied Mathe-
matics (State University of New York at Binghamton).

FOSTER, T. LINDSAY, Instructor, Computer and Office
Information Systems
B.S., 1970 (Mars Hill College); M.Ed., 1976 (University of
North Carolina at Charlotte).

FOSTER, RONNI MARKMAN, Human Resources Analyst,
Human Resources,
B.S., 1990 (Virginia Polytechnic Institute and State University);
M.S.Ed., 1994 (Old Dominion University).

FRENCH, JANIE C., Instructor, Computer and Office
Information Systems
B.S., 1970 (Lesley College); M.A., 1976 (University of
Bridgeport).

FUNCHES, TOMMY L., Instructional Lab Facilitator, Academic
Learning Center
A.A., 1982 (Central Piedmont Community College); B.A.,
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GADSDEN, CHRISTINE, Instructional Lab Faciliator, Computer
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A.A., 1959 (Carver College).

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GALES, BARBARA, Instructional Lab Facilitator, Community Development
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GARNER, E. BRINDLEY, Instructor, Health, Physical Education and Recreation
B.A., 1995 (University of North Carolina at Chapel Hill); M.S., 1997 (Appalachian State University).

GASKINS, CHARLOTTE COOPER, Instructor, Business and Accounting
B.A., 1987 (Rhodes College); J.D., 1994 (University of North Carolina at Chapel Hill).

GAY, MELVIN L., Dean, Student Development
B.A., 1967 (North Carolina Wesleyan College); M.A., 1969; PhD., 1974 (University of North Carolina at Chapel Hill).

GENNETT, NICHOLAS D., Vice President, Education Support Services
B.S., 1960 (Ohio University); M.Ed., 1963; Ph.D., 1966 (Kent State University).

GESTWICKI, CAROL, Instructor, Behavioral and Social Sciences
B.S.N., 1962 (McMaster University, Hamilton, Ontario); M.A., 1970 (Drew University). Graduate study at University of North Carolina at Chapel Hill.

GIBSON, MARGARET L., Instructor, Public Safety
B.S., 1987 (Florida State University); M.S., 1997 (Florida International University).

GINGRICH, MAHA S., Director, Graduation and Institutional Records Management
B.A., 1983 (Osmania University); B.S., 1992 (Gardner-Webb University; 1997 M.B.A. (Wingate University).

GIVENS, LYNN M., Associate Dean, Evening Campus and Special Programs
B.S., 1969 (Hampton Institute); M.A. Ed., 1985 (University of North Carolina at Charlotte). Additional graduate study at Marquette University and University of Texas at Austin.

GORE, DANIEL B., Instructor, Lab Facilitator, Technology Learning Center
A.A.S., 1989 (Central Piedmont Community College); B.S., 1986 (University of North Carolina at Charlotte); M.Ed., 1992 (University of North Carolina at Charlotte).

GOW, ALEXANDER III, Counselor
A.B., 1958 (Duke University); M.Ed., 1968 (University of North Carolina at Chapel Hill).

GRAHAM, H. PAIGE, Instructor, English, Literature and Languages
B.A., 1972; M.A., 1974 (University of South Florida).

GRAHAM, SARA P., Program Director, Student Services, Student Development
B.S., 1972 (University of Maryland); M.S., 1977 (Morgan State University).

GRANGER, W. FRANKLIN, Instructor, Technical Careers
A.G.A., 1970 (Chowan College); B.S., 1973 (Arkansas State University); M.A., 1977 (California State University at Los Angeles). Additional graduate study at Central Missouri State University.

GRANN-STAHL, LANE, Area Coordinator, South Center
B.A., 1974 (University of Washington); M.B.A., 1994 (University of North Carolina at Charlotte).

GRAVES, ELLANOR L., Division Director, Adult High School/GED
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GREEN, H. RAY, Instructional Lab Facilitator, Mathematics and Sciences
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GRIFFIN, HOKE S., Instructor, Behavioral and Social Sciences
B.A., 1962; M.A.T., 1966 (University of Florida). Additional study at Florida State University, University of Pennsylvania, University of Rochester, Punjab University (Lahore, Pakistan), University of North Carolina at Chapel Hill.

GRIFFIN, THOMAS E., Dean, Educational Resources
B.S., 1952 (Western Carolina University); M.A., 1964 (Appalachian State University); Ed.D., 1976 (Nova University). Additional graduate study at University of North Carolina at Chapel Hill and North Carolina State University.

GRIFFITHS, DAWN CUSTALOW, Division Director, Adult English as a Second Language
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B.A., 1975 (Winthrop College); Certificate in Cytotechnology, 1976 (Medical University of South Carolina); M.S., 1985 (Winthrop College). Registered Specialist in Cytotechnology; Registered Cytotechnologist.

PASCHAL, MARY LOU, Division Director, Visual and Performing Arts
B.M., (Oberlin Conservatory of Music); M.M., (University of Mississippi). Additional graduate study at Harvard University and Winthrop University.

PATTERSON, DONA M., Instructor, Nursing and Human Services
B.A., M.Ed., (University of North Carolina at Charlotte); LMFT (American Association of Marriage and Family Therapist); FMR (Registered Family Mediator-New York).

PATTERSON, DWIGHT M., Counselor
B.A., 1973, M.A., 1979 (North Carolina Central University).

PATTERSON, ROBERT, Health and Safety Officer, Human Resources
B.A., 1988, Occupational Health and Safety (North Carolina Central University); Qualified 108 Health Physics Safety Tech., 1990, (Naval Sea Systems Command Training Facility).

PAYNE, ANN, Employment Advisor
Diploma, 1963 (Waco Business College); Additional study at Central Piedmont Community College.

PAYNE, JAMES W., Instructor, Technical Careers
A.G.E., 1994, Central Piedmont Community College. Study at Western Carolina University, Central Piedmont Community College, and F.M.C. Ordinance Division Welding School. A.W.S., A.S.M.E., A.B.S. and Military Welding Codes Qualifications, steel and aluminum.

PERKINS, WILLIAM S., Writer/Editor, Community Relations
B.A., 1972; M.Ed., 1974 (University of Houston).

PETTY, NORMAN HOLMES, Dean, Business and Technologies
B.A., 1962 (Wheaton College); M.B.A., 1970 (Georgia State University); Ph.D., 1981 (University of North Carolina at Chapel Hill).

PFAHLERT, THOMAS H., Instructor, Visual and Performing Arts
B.A., 1960 (Meinzinger School of Art). Additional study at Art Center School of Design.

PFEIFER, CHARLOTTE, Instructor, Behavioral and Social Sciences
B.S., 1969 (Louisiana State University); M.S., 1971 (University of Tennessee).

PHILLIPS, HARRY R., Instructor, English, Literature and Languages
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PICKLER, JERRY, Instructor, Transport Systems Technologies, T-TEN Coordinator
A.A.S., 1998, Automotive Technology; A.S.E., Master Automotive Technician (Central Piedmont Community College)

PINDER, RICHARD, Instructor, Adult High School
B.A., 1977 (Oakwood College); M.A.T., 1982 (Andrews University).

PITTS, CAROLYN, Director, Financial Aid/Veterans and Military Affairs
B.S., 1966 (Livingstone College); M.Ed., 1976 (University of North Carolina at Charlotte).

POINTER, SHEILA P., Instructional Lab Facilitator, Health Sciences
Dental Assisting Diploma, 1968 (Central Piedmont Community College). Additional study at Lee McRae College.

PRIM, MARZELLE RENEE, Instructional Lab Facilitator, Business and Accounting
Diploma Electronics, A.A.S., (Central Piedmont Community College); B.A., 1986 (University of North Carolina at Charlotte). Additional study at New Jersey State University, Louisiana State University, Georgia Institute of Technology, and Central Piedmont Community College.

PRIVETTE, DAVID R., Division Director, Mathematics and Sciences
B.A., 1975 (University of North Carolina at Charlotte); M.A., 1978 (University of Georgia).

QUALTIERE, JUDITH, Instructor, Health Sciences
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RABON, MONA S., Coordinator of Professional Development/Language/Teacher Re-certification, Community Education
B.A., 1986; M.Ed., 1989 (University of North Carolina at Charlotte).

RAHMAN, MALIK K., Associate Vice President, Information Technology Services
B.S., 1984; M.B.A., 1991 (University of Hartford);

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A.B., 1967 (University of North Carolina at Chapel Hill); M.A., 1968; Ed.S., 1977 (Appalachian State University); Ph.D., 1982 (University of Texas at Austin).

RASMUSSEN, PHILIP M. II, Instructional Developer, College Without Walls
A.S., 1966 (Edison Community College); B.S., 1971; M.S., 1972 (Rochester Institute of Technology); Certificate, 1988 (Defense Equal Opportunity and Management Institute); Certificate, 1990 (US Army Engineer School). Additional study at the University of Wyoming, Florida State University and UCLA.

RATLIFF, KEITH B., Director, Professional Development
B.A., 1974 (Wright State University); M.A., 1981 (Central Michigan University); Certified Master Trainer, 1991 (Queens College).

RAY, WANDA A., Libraray Specialist - South Campus
B.S.B.A.E., 1970 (East Carolina University)

READ, DANIEL EDWIN, JR., Instructor, Mathematics and Sciences
B.S., 1961 (University of Florida); M.A., 1968 (Duke University). Additional study at University of North Carolina at Greensboro and University of North Carolina at Charlotte.

REDMAN, RICHARD H., Director, Enrollment Reporting, Compliance and Audit
B.A., 1985 (Pfeiffer University).

REED, ERIN, Career Planning Advisor, Career Center
B.A., 1992 (State University of New York at Buffalo). Graduate study at the University of North Carolina at Charlotte and Pfeiffer University

REEP, SAMUEL C., Instructor, Mathematics and Sciences
A.A., 1958 (LeesMcRae College); B.S., 1960; M.A., 1964 (Appalachian State University). National Science Fellowship, 1967 (Florida State University). Additional undergraduate study at North Carolina State University. Additional graduate study at Carleton College.

REID, VICKIE O., Instructor, Nursing and Human Services
B.S.N., 1976 (University of North Carolina at Charlotte); M.N., 1979 (University of South Carolina).

REINHART, CHRISTINA M., Senior Graphic Design Specialist, Community Relations and Marketing Services
A.A., 1987 (Parkland Community College); B.A., 1990 (University of Illinois at Champaign-Urbana).

REINKE, STANNA, Cooperative Education Coordinator, Transport Systems Technologies, Cooperative Education
B.A., 1990; M.A., 1992 (Appalachian State University)

REITER, BETTY, Instructor, Computer and Office Information Systems
B.A., 1964 (University of North Carolina at Greensboro); M.S., 1966 (Clemson University); M.S.,1970 (University of Hawaii).

RHODEN, DAVID A., Director, Testing and Assessment Center
A.A., 1972 (Central Piedmont Community College); B.A., 1975 (University of North Carolina at Charlotte).

RICKETSON, CYNTHIA L., Instructor, English, Literature and Languages
B.S., 1964; M.A., 1966 (University of Tennessee).

RODEHEFFER, PATRICIA, Supervisor, Bookstore Operations
B.A., 1978 (Appalachian State University).

ROGERS, ELIZABETH B., Instructor, English, Literature and Languages
B.A., 1982; M.S., 1986 (Indiana University); M.S., 1993 (Bowling Green State University). Additional graduate study at University of North Carolina at Charlotte.

ROGERS, JAMES COOK, Instructor, Behavioral and Social Sciences
B.A., 1966; M.A., 1968 (Wake Forest University). Additional graduate study at University of California at Berkeley and University of Kentucky.

ROSS, ELIZABETH SPROUL, Instructor, Visual and Performing Arts
B.A., 1959 (Queens College); M.F.A., 1965 (University of North Carolina at Greensboro).

ROSS, LUTHER L. SR., Instructor, Business and Accounting
B.S.B.A., 1972 (GardnerWebb College); M.A., 1978 (Western Carolina University). Additional studies at The Citadel and Appalachian State University.

ROSS, MARGARET M., Counselor
A.B. (North Carolina Central University); MHDL (University of North Carolina at Charlotte).

ROWELL, ANN PARKIN, Instructor, Business and Accounting
B.S., 1973 (University of North Carolina at Greensboro); M.B.A., 1985 (Winthrop University). Certified Public Accountant.

RUBIO-FESTA, GILDA, Program Chair, Adult English as a Second Language
B.A., 1975, Speech/Drama (University of Maryland); M.A., 1996, Teaching of English to other Speakers (Teachers College) and (Columbia University).

SALAMONE, DOREEN, Instructor, Health Sciences
B.S., 1986 (Adelphi University); Medical Technology Certificate, 1986 (Lenox Hill Hospital).

SANDERS, REBECCA C., Instructor, Health Sciences
B.S., 1979 (University of South Carolina); M.S.A., 1992 (Central Michigan University); 1981, Medical Technology Certificate (Presbyterian Hospital).

SAVAGE, MOLLY F., Instructor, Health Sciences
A.A., 1955 (Mars Hill Junior College); B.S.N., 1958 (Duke University). Registered Nurse.

SECHRIST, JEFFREY W., Director, Management, Professional & Organizational Development, Corporate and Continuing Education
B.A., 1971 (LaSalle University); M.A., 1978 (University of North Carolina at Charlotte). Additional study at University of Virginia and Appalachian State University.

SEMPLE, VICTORIA H., Instructional Lab Facilitator, Computer and Office Information Systems
B.A., 1969 (Kent State University).

SHAFFER, AMY L., Director, Resource Development
B.A., 1995 (West Virginia University); J.D., 1998 (West Virginia University Collge of Law); C.P.C.M., 1998 (National Contract Management Association).

SHAMSID-DEEN, DEVENURE NIVENS, Instructor, Advancement Studies
A.B., 1968 (Johnson C. Smith University). Additional study at University of North Carolina at Charlotte and Appalachian State University.

SHERMAN, KRISTIN, Instructor, Adult English as a Second Language
B.A., English, 1978 (University of Virginia). Currently enrolled in M.Ed. program at University of North Carolina at Charlotte.

SHULTZ, HAROLD P., Director, General Services
A.A.S., 1965; B.B.A., 1969 (Marshal University). Additional studies at Central Piedmont Community College and Wilson Learning Courses.

SIMPSON, SONDRA A., Counselor, Educational Talent Search Program
B.S., 1966; (Bowling Green State University, Bowling Green, Ohio); M.S., 1979, (Wright State University, Dayton, Ohio).

SIMPSON, THOMAS A., Instructional Developer, Corporate and Continuing Education
B.S., 1990; M.S., 1992 (State University College at Buffalo).

SIMPSON, RICHARD L., Production Specialist, Distance Learning
B.A., 1988 (University of South Carolina); Diploma in Teleproduction Technology, 1989 (York Technical College)

SMITH CYNTHIA McAFEE, Division Director, Health, Physical Education and Recreation
B.S., 1980 (Johnson C. Smith University); M.S., 1982 (University of Tennessee at Knoxville). Additional study at University of North Carolina at Chapel Hill.

SMITH, MARY, Instructor, Coordinator Allied Health Sciences, Corporate and Continuing Education
R.N., 1968 (Holy Name Hospital School of Nursing); M.B.A., 1996 Queens College. Additional studies at Loyola University.

SMITH, ROSEMARY O., Instructor, Adult High School-Compensatory Education
B.S., 1972; M.S. 1975 (Virginia Commonwealth University).

SMITH, SUZANNE T., Instructor, Mathematics and Sciences
B.A., 1969 (Queens College); M.A., 1994 (University of North Carolina at Charlotte).

SPENCER, SARA S., Instructor, Visual and Performing Arts
B.M. 1963, (Oberling Conservatory of Music); M.S.M., 1965 (Union Theological Seminary School of Sacred Music, NY).

SPINICCI, DANIEL, Director of Construction, Construction Projects
B.S., 1966 (Bucknell University).

STANLEY, KAREN, Instructor, English, Literature and Languages
B.A., 1977 (Wayne State University); M.A., 1998 (University of South Carolina at Columbia); Certificate in ESL, 1980 (American University). Additional graduate study at American University, and University of Virginia.

STAYER, LAUREN, Director, MultiSkills Center
B.A., 1969 (University of North Carolina at Chapel Hill).

STEARNS, LARRY M., Instructor, Mathematics and Sciences
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Diploma, 1960 (Philipsburg School of Nursing); B.S.N., 1986 (Villa Maria College). Graduate study at Gannon University. Registered Nurse.

STILLWELL, GORDON STEVE, Instructor, Transport Systems Technologies
Auto Mechanics Diploma, 1969; Auto Body Repair Diploma, 1970; A.G.E. Degree, 1971; Machinist Diploma, 1979 (Central Piedmont Community College). ASE Master Automotive Technician.

Faculty and Professional Staff

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Diploma, 1969 û Licensed Practical Nurse; A.A., 1977 (Central
Piedmont Community College); B.A., 1979 (University of
North Carolina at Charlotte). Graduate study at University of
North Carolina at Charlotte.

STUMP, KATHY, Instructor, English, Literature, and Languages
B.A., 1980 (Gallaudet University); M.Ed., 1995 (University of
Georgia).

SUMEREL, JERRY J., Interpreter, Services for Students with
disAbilities
Comprehensive Skills Certificate, 1977 (Columbia, SC).

SUMMER, JOSEPH T., Instructor, Engineering Technologies
B.S. Horticulture, 1969 (Clemson University). Additional study
at North Carolina State University. Certified Plantsman.
Licensed Pesticide Applicator.

SUMMERS, JACK H., Instructor, English, Literature and
Languages
B.A., 1976; M.A., 1979 (Western Carolina University).

SUTCLIFFE, GEORGE H., Instructor, Business and Accounting
B.S., 1960 (Davidson College); M.A., 1961 (East Carolina
University); Ed.D., 1980 (Nova University). Additional study at
North Carolina State University. Graduate, U.S. Army
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SUTTON, ROBERT T., GED Program Coordinator, Community
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B.A., 1977 (University of North Carolina at Chapel Hill).
Graduate study at University of North Carolina at Charlotte and
Appalachian State University.

SWANDER, MARTHA JO, Instructor, Computer and Office
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B.S., 1971; M.S., 1976 (Radford University). Additional
graduate study at Clemson University.

SWANGER, WILLIAM T., Instructor, Engineering Technologies
B.S., 1973, Industrial Education (Western Carolina University);
A.A.S., 1976, Electrical Engineering Technology (Gaston
College); Unlimited Electrical Contractor's License, 1977.

SYFERT, DAVID VERNON, Division Director, Behavioral and
Social Sciences
B.A., 1964 (Cornell College); M.A., 1966 (Michigan State
University). Additional study at Michigan State University.

TANSEY, CAROLYN L., Specialist, Financial Aid /
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B.A.E., 1961 (University of Florida)

TAYLOR, MARTHA MACKAFEE, Acquisitions Coordinator,
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B.A., 1972 (North Carolina State University). Additional study
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TEETER, NICKY W., Instructor, GM - ASEP Coordinator,
Transport Systems Technologies
A.A.S. in Automotive Technology, 1990 (Central Piedmont
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TEMPLE, WILLIAM S., Instructor, Advancement Studies
A.B., 1956 (Lenoir Rhyne College); M.Ed., 1962 (University of
North Carolina at Chapel Hill). Additional study at Duke
University.

TEMPLES, LAURA, Programmer Analyst, Administrative
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A.A.S., 1997 (Central Piedmont Community College). Netware
3.x CNA Certification, 1996.

TERRY, BEVERLY B., Faculty Developer, College without
Walls
B.A., 1969; M.A., 1971 (University of Missouri at St. Louis).
Additional study at Southern Illinois University. Certified
Public Accountant.

THARPE, LAVERYL N., Instructional Lab Facilitator, South Area
Center
B.A., 1963 (Wayne State College).

THOMPSON, CARL, Manager, Plant Services
B.S.M.E., 1974 (University of Louisville); M.B.A., 1986 (Wake
Forest University).

THORE, CYNTHIA B., Instructor, Advancement Studies
B.S., 1993 (Western Carolina University; M.Ed., 1997 (Univer-
sity of North Carolina at Charlotte)

THURMAN, JAMES K., Student Services Representative,
Education Resources, North Campus Learning Lab
B.A., 1986 (University of North Carolina at Charlotte).

TIMBLIN, GEORGE A., Assistant Dean and Division Director,
Engineering Technologies
B.S.E.E., 1962 (Duke University); M.Ed., 1975 (University of
North Carolina at Charlotte). Additional studies at the National
Institute for Certification in Engineering Technologies.

TONE, FREDERICK C., Instructor, Science
B,S., 1970 (Rolling College); M.S., 1979 (University of Central
Florida).

TONG, DIEP N., Director, Grants & Contracts / Payables
A.A., 1976 (Rochester Community College); B.A., 1978
(Winona State University).

TSAI, VICTORIA D., Reference Librarian, Library Services
B.A., 1970 (Xavier University); B.A., 1988 (University of
North Carolina at Charlotte); M.A.L.S., 1972 (Roasry College).

UZZELL, JANE W., Instructor, Adult High School-Compensatory
Education
B.A., 1972 (Linfield College).

VALLADARES, EDITH, Instructor, English, Literature and
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A.A., 1986 (Central Piedmont Community College; B.A., 1987;
B.A., 1990; M.Ed., 1992 (University of North Carolina at
Charlotte). Additional graduate study at the University of North
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VANCE, THOMAS M., Instructor, Visual and Performing Arts
B.S., 1960; M.A., 1962 (Appalachian State University).
Additional study at University of North Carolina at Chapel
Hill and University of Georgia.

VRANA, MELISSA, Instructor, Behavioral and Social Sciences
B.A., 1983; M.A., 1991 (University of California at Davis).

WAGNER, CARL C., Instructor, Engineering Technologies
A.A.S., 1976 (Central Piedmont Community College); B.E.T.,
1979 (University of North Carolina at Charlotte); M.S., 1992
(North Carolina A&T State University).

WALKER, HAROLD DEAN, Manager, Computing Services
A.A.S., 1967 (Central Piedmont Community College).

WALKER, LAURIE, S., Division Director, Transport Systems
Technologies
B.S., 1981 (University of North Carolina at Greensboro); M.S.,
1989 (Winthrop). University of Wisconsin at Madison, Florida
State University, Western Carolina University.

WARD, CELESE, Program Coordinator, Computer Technology,
Corporate and Continuing Education
B.A., 1993 (Auburn University). (Numerous computer courses).

WARREN, GEORGE C., III, Instructor, Behavioral and Social Sciences
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WATKINS, GREGORY K., Instructor, Engineering Technologies
B.S.M.E., 1985 (North Carolina State University); M.E.M., 1990 (Old Dominion University); Registered Professional Engineer.

WATTS, MARGARET G., Systems Accountant, Financial Services
B.S. Business Administration (Pfeiffer College).

WELLS, DENISE H., Research Analyst, Planning and Research
A.A.S., 1987, Business Administration (Monroe Community College); B.S., 1990, Organizational Communication (State University of New York at Brockport).

WELLS, JONATHAN DANIEL, Instructor, Behavioral and Social Sciences
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WELLSPEAK, DAWN M., Counselor , Counseling and Advisement
B.S., 1987 (San Diego State University); M.S.W., 1990 (San Diego State University); C.C.S.W., 1994 (North Carolina State exam).

WERTZ, ROBENA, Coordinator, Community Leadership / Family Advocacy Program, Community Development
A.A., 1960 (University of Minnesota); A.B., 1978 (Belmont Abbey College); M.A., 1983 (Appalachian State University).

WEST, PATRICIA ELLEN, Instructor, Business and Accounting
B.A., 1983; M.B.A., 1986 (Queens College).

WESTCOTT, PAMELA G., Computer Assisted Instruction Facilitator, Academic Learning Center
B.S., 1977 (North Carolina Central University). Additional study at Appalachian State University and University of North Carolina at Charlotte.

WHEELER, PATRICIA M., Instructor, English, Literature and Languages
A.A. (Stephens College); B.A. (George Washington University); M.A. (University of Maryland). Additional graduate study at the University of South Carolina.

WHICKER, LEESA G., Instructor, Health Sciences
B.A., 1981 (High Point College). Additional graduate studies at University of North Carolina at Chapel Hill. Certified Medical Assistant.

WHITE, LINDA J., Instructor, Visual and Performing Arts
B.A., 1971 (University of North Carolina at Greensboro); M.Ed., 1973 (University of North Carolina at Greensboro).

WHITESIDES, PATRICIA F., Instructional Lab Facilitator, Science
A.A., (Central Piedmont Community). Additional study at Queens College.

WHITLEY, JAMES A., Instructor, Health Sciences
A.A.S., 1975 (Central Piedmont Community College); B.S.W., (Pfeiffer College). Certified Respiratory Therapy Technician. Registered Respiratory Therapist. Certified Pulmonary Function Technologist.

WHITLEY, JOHN, Supervisor, Bookstore Operations
B.S., 1987 (Limestone College).

WHITLEY, RALPH W., Instructor, Behavioral and Social Sciences
A.A., 1963 (Brevard College); A.B., 1965 (University of North Carolina at Chapel Hill); M.A., 1968 (Appalachian State University). Additional studies at Appalachian State University and Central Piedmont Community College.

WHITT, BARBARA L., Faculty Developer, College Without Walls
B.A., 1969 (High Point University); M.Ed., 1994 (Winthrop University).

WHITTEN, SALLY T., Instructor, Health Sciences
B.S., 1975 (Medical University of South Carolina); M.Ed., 1988 (University of North Carolina at Charlotte). Licensed Physical Therapist.

WIDENHOUSE, JAMES WAYNE, Instructor, Engineering Technologies
Machinist Program Certificate, 1971 (North Carolina Machinist Apprenticeship); Machinist Diploma, 1972; A.G.E. (Central Piedmont Community College); B.S., 1992 (Western Carolina University).

WILLIAMS, ALICE P., Counselor
B.A., 1969 (Johnson C. Smith University); M.Ed., 1995 (Winthrop University). Additional study at the University of North Carolina at Charlotte.

WILLIAMS, BETTY GAILE, Counselor
B.A., 1969 (University of North Carolina at Chapel Hill); M.Ed., 1977 (University of North Carolina at Charlotte).

WILLIAMS, CLAUDE T., Division Director, Advancement Studies
B.A., 1977 (South Carolina State University); M.Ed., 1978 (Winthrop University). Additional study at Winthrop University, University of South Carolina, and Columbia University, (NY).

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A.A., 1971 (Central Piedmont Community College); B.A., 1973 (University of North Carolina at Charlotte).

WILLIAMS, RONALD D., Instructor, Computer Science and Office Information Systems
B.A., 1971 (University of North Carolina at Chapel Hill); M.A., 1977 (University of Northern Colorado); A.S., 1980 (Central Piedmont Community College). Additional graduate studies at Winthrop University, University of North Carolina at Charlotte, and Clemson University.

WILSON, BONNIE H., Instructor, Community Development
B.A., Elementary Education, 1967 (SUNY Oswego); M.S., 1984, Reading Education (SUNY Oswego); M.S., 1997, Human Services / Counseling (SUNY Oswego). NYS Permanent Certification N-6 Elementary Education; NYS Permanent Certification K-12 Reading; NC License K-6 Elementary Education; NC License Reading.

WILSON, DONALD R., Instructor, Health ,Physical Education and Recreation
B.S., 1978 (East Tennessee State University); M.S., 1991 (Winthrop University).

WILSON, MARJORIE, Coordinator, Short-Term Training / One-stop Career Center
A.B., 1972; M.S., 1973 (State University College, Fredonia, New York).

WILSON, MAXIE MCRAE, Academic Advisor, Ruth G. Shaw Academic Learning Center
B.A., 1980 (Johnson C. Smith University). Additional studies at Central Piedmont. Graduate studies at Liberty University.

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B.S., 1959; M.Ed., 1965 (Georgia Southern University).
Additional graduate study at Auburn University and North
Carolina State University.

WITTER-MERITHEW, ANNA, Instructor, English, Literature and
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B.P.S., 1980 (Empire State College) Nationally Certified Inter-
preter. Comprehensive Skills Certificate. Legal Interpretation
Certificate. Certificate of Interpretation and Certificate of
Transliteration, Certificate of Oral Interpretation; Comprehen-
sive and Special Certificate: Performing Arts; Class III Broad-
caster License. Additional studies at Central Piedmont
Community College.

WISDOM, STAN L., Instructor, Behavioral and Social Science
B.A. 1970 (University of North Carolina at Charlotte); M.A.,
1977 (East Carolina University). Additional study at North
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WOLF, CHERYL J., Instructor, Health Sciences
B.S., 1980 (University of New York, Buffalo).

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Technologies
B.A., 1968 (Belknap College); A.A.S., 1970 (Rowan Technical
Institute); B.S., 1982 (Edison State College).

WRIGHT, MARILYN MOYES, Instructor, Health Sciences
B.S., 1969 (Ohio State University); M.Ed., 1986 (University of
North Carolina at Charlotte).

WYCO, JEFFREY A,. Computer/Electrical/Electronics
Technology
B.S.E.E., Electrical Engineering, 1991 (West Virginia Institute
of Technology); M.S., Control Systems Engineering, 1993
(West Virginia Institute of Technology).

WYKLE, BILLY DALE, Instructor, Transport Systems
Technologies
Diploma in Automotive Mechanics, 1972 (Central Piedmont
Community College). Degree in Automotive Technology, 1990
(Central Piedmont Community College). ASE Master Automo-
tive Technician.

WYNN, VARONA, Instructor, Mathematics and Sciences
B.S., 1971 (North Carolina Agricultural and Technical State
University); M.A., 1975; M.S., 1980 (Atlanta University).

WYRICK, ADRIAN B., Counselor
B.A. 1972; M.A. 1974 (North Carolina Central University).

YOUNGMAN, KAREN G., Instructor, Adult English as a Second
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B.A., 1968 (Denison University at Granville, Ohio); M.A.
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ZEISS, PAUL ANTHONY, President
B.S., 1968; M.S., 1972 (Indiana State University); Ed.D., 1979
(Nova University).

ZELLER, JAMES DOUGLAS, Instructor, Visual and Performing
Arts
B.A., 1969 (Furman University); M.S.M., 1971 (Union
Theological Seminary School of Sacred Music, NY).

ZOLDOWSKI, PAULA, Coordinator, Desktop Applications
Corporate and Continuing Education
B.A., English, 1992 (University of North Carolina at Charlotte).

ZOLLINGER, RICHARD K., Dean, South Campus
B.A., 1979 (School of Commerce, Zuerich, Switzerland); B.A.,
1984; M.A., 1987 (East Carolina University).

ZORN, BRADLEY J., Instructor, Business and Accounting
B.S./B.A., 1973 (Appalachian State University). Additional
study at Pfeiffer College. Certified Public Accountant.

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Faculty and Professional Staff
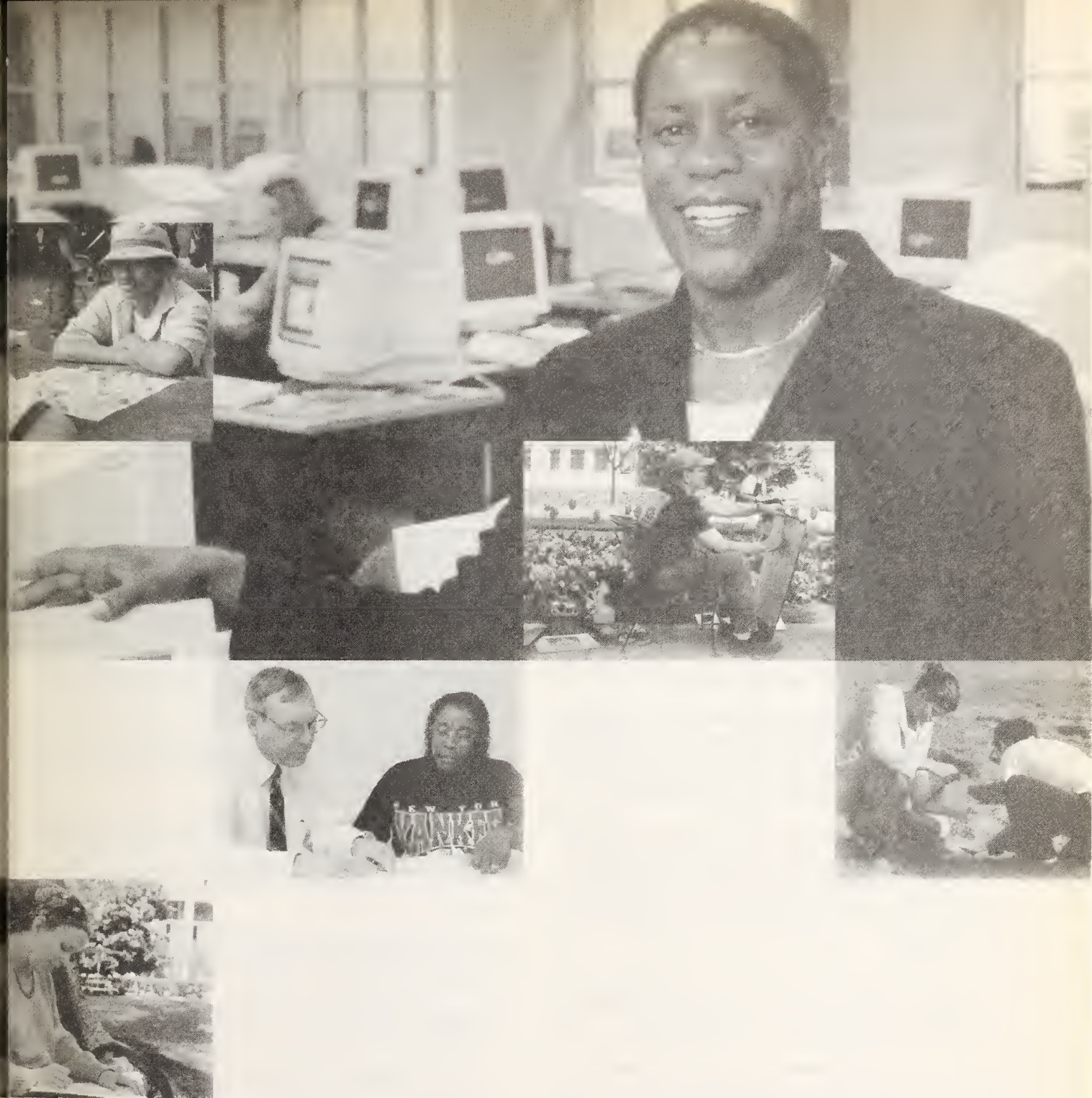
Glossary and Index

Glossary

The explanations below define words that are frequently used at Central Piedmont Community College.

Academic Advisor: A member of the faculty in a specified program who works with students in that program to help them reach their educational goals.

Academic Intervention: The status of students working for a degree, diploma, or certificate when their program GPA in any semester is below Standards of Progress required for the number of semester hours they attempted.

Academic Suspension: The status of students working for a degree, diploma, or certificate after they have been on Academic Intervention for two consecutive semesters of enrollment and their program GPA remains below Standards of Progress.

Advisement Week: A week each semester, prior to registration, when students are encouraged to meet with their faculty advisors and program counselors.

Advancement Studies Courses: Pre-college courses (identified with a beginning 0 digit) that prepare students for college-level courses.

Associate Degree: A document issued to a student signifying completion of a two-year curriculum/program.

Basic Studies: Pre-college courses that include Adult Basic Literacy Education (ABLE), Adult Basic Education (ABE), Adult High School Diploma (HSD), Advancement Studies courses, General Educational Development (GED), Limited English Proficiency, and Workplace Basic Education.

Business, Health, and Technology Programs: Certificate programs (less than one year), diploma programs (one year), and Associate in Applied Science Degree programs (two years or more). Some completed two-year degrees may transfer to four-year colleges or universities. Consult with a Faculty Advisor or Program Counselor regarding transferability.

Certificate: A document issued to a student signifying completion of a specific series of skills courses. A certificate curriculum/program is less than one year in length.

College Transfer Programs: The programs intended for transfer to senior institutions including the Associate in Arts, Associate in Science, and Associate in Fine Arts.

College Visitation Day: Usually held annually in November when representatives from many four-year colleges and universities, and representatives of the armed services are available to CPCC students to provide information.

Common Core Courses: Those courses that have been identified as part of a guaranteed transfer articulation with the University of North Carolina system.

Continuing Education Unit (C.E.U.): A unit earned in courses offered through Corporate/Continuing Education.

Corequisite: A course that must be taken during the same term as the course that required the corequisite.

Corporate and Continuing Education: A division of CPCC that offers continuing education and extension courses for local businesses, for upgrading skills, or for personal enrichment. These courses have 7000-8000 numbers; some offer C.E.U.'s.

Course Description: A brief description of what is taught in the course and what the student should be able to do upon completion. Classroom hours, laboratory hours, clinic or co-Op hours, credits earned, and prerequisite/corequisite (if needed) are listed.

Credit: The number of units earned upon completing a curriculum course, measured in semester hours.

Curriculum (also called a Program): A set of courses designed to prepare a student either to enter the workforce immediately upon completion or to transfer to a degree program at a four-year college or university. Depending upon the length of the program, a degree, diploma, or certificate is awarded upon completion.

Diploma: A document issued to a student signifying completion of a one-year college curriculum program; also a document signifying completion of the Adult High School Diploma program.

Drop/Add: A period during registration when students may change their class schedules without penalty. See Schedule Adjustment.

Elective Course: A course that the student may choose to take to meet diploma/degree requirements, as distinguished from required courses. Some electives are specified within areas, such as Technical Electives, Humanities/Art Electives; others are Free Electives.

Faculty Advisor: A member of the faculty in a program who is assigned as an advisor to students in that program to help them meet their educational goals.

Fall Break: A short break in mid-Fall semester when the College is open but classes are suspended.

Final Examination Week: A period of time at the end of each semester when instructors may schedule final examinations. The examination schedule is published with the Class Schedule so that students will know at the time of registration when the examination will be.

Full-Time Student: A student enrolled for 12 or more credits during fall and spring terms and for 9 or more credits during summer term.

General Education Courses: Those courses required in all degree programs, ensuring that graduates have the necessary general knowledge, abilities, and intellectual skills commensurate with their degrees.

Grade Point Average (GPA): The total number of grade points earned (A=4; B=3; C=2; D=1; F=0) divided by the total number of semester hours attempted.

In-State Student: A legal resident of North Carolina.

Lab Fee: An additional charge for some classes that have labs as part of the course structure. Lab fees are used exclusively by the division to purchase supplies and equipment for the lab to which the fees are applied.

Out-of-State Student: A legal resident of a state other than North Carolina, or a legal resident of a foreign country.

Part-Time Student: A student enrolled for fewer than 12 credits during fall and spring terms and for fewer than 9 credits during summer term.

Prerequisite: Any course that must be completed before enrolling in the course requiring the prerequisite.

Program: See Curriculum.

Program Description: Information about the program including the official definition, degree/diploma/certificate awarded, admissions processing, and a list of courses in that curriculum.

Program GPA: The grade point average of the courses that are required for completion of a program. To remain in good academic standing, students must maintain a program GPA in accord with the hours for which they enroll, as prescribed by the CPCC Grading Policy. Students must have a final program GPA of 2.0 (C) in order to graduate.

Schedule Adjustment: A time during the first week of each term when students may drop or add classes without penalty.

Spring Break: A short break in mid-Spring semester when the College is open but classes are suspended.

Standards of Progress: Guidelines that are part of CPCC's Grading Policy and include requirements for students in degree, diploma, and certificate programs to maintain good academic standing. These standards include completion of courses, minimum program GPA, and minimum semester GPA. When students do not meet these standards, they are placed on Academic Intervention, or Academic Suspension and they work more closely with their Faculty Advisor or Program Counselor in order to reach their educational goals.

Transcript: A student's official academic record.

Transferability: The acceptability for credit of a course or program by another college or university.

Transfer Programs: See College Transfer Programs.

Tuition: The amount of money a student must pay at the time of registration for each hour of academic credit based on the student's residency classification.

A

B

C

R

S

T

V

W

CITYVIEW CENTER

Alleghany St.

Ashley Rd.

Cityview Center

Parking

Tuckaseegee

Ta Uptown Charlotte →

Exit 34B

Freedom Mall

Freedom Dr.

N

Ashley Rd.

85

27

Alleghany St.

77

85

Area of detail

← Ta Billy Graham Pkwy.

Alleghany St.

Alleghany St.

1609 Alleghany St., Charlotte - 704/330-6658

CORPORATE TRAINING CENTER

Yorkmont

Exit 33

85

Water Ridge Parkway

Belk Stores Services

Tyvola

Yorkmont

Tyvola

Billy Graham

North Falls Drive

CPCC Corporate Training Center

LakePointe Office Pork

Charlotte Coliseum

Charlotte Coliseum

One Water Ridge Plaza

South Stream Blvd.

77

Exit 5

Jocks and Jills

N
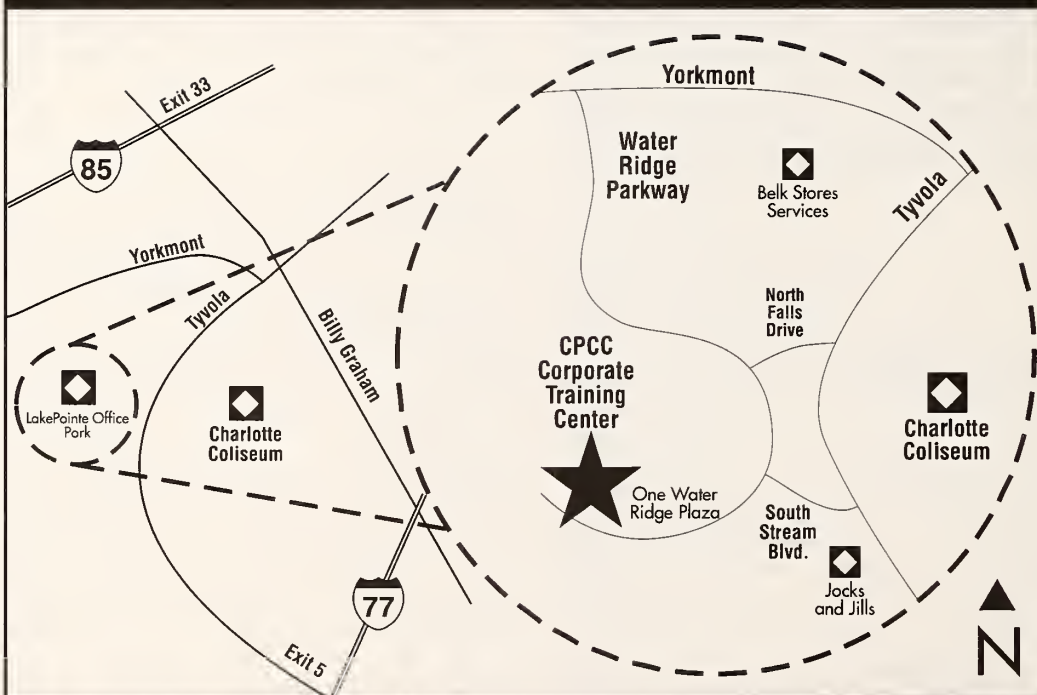
2201 Water Ridge Pkwy., Suite 100 - 704/330-4053

AREA CAMPUSES

NORTH CAMPUS

11930 Verhoeff Dr., Huntersville - 704/330-4100

SOUTH CAMPUS

2800 Campus Ridge Rd., Matthews - 704/330-4200

SOUTHWEST CAMPUS

315 Hebron Street, Charlotte
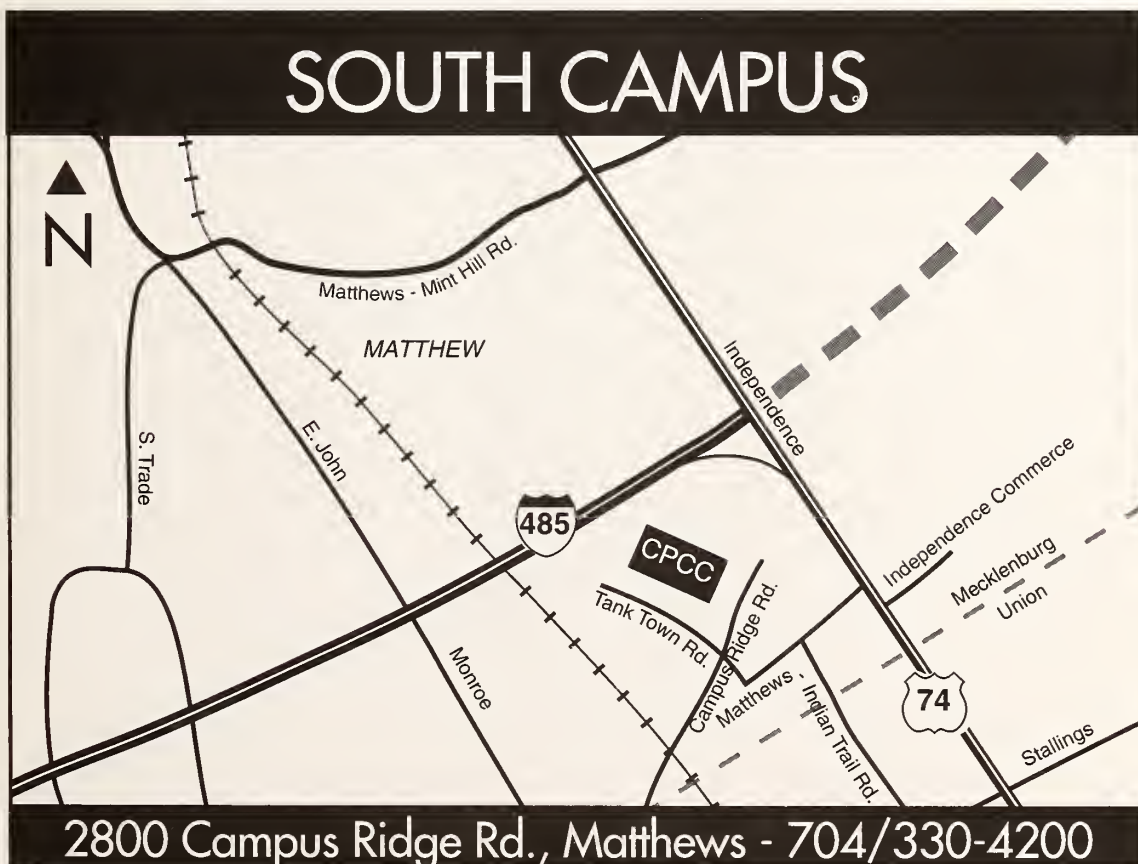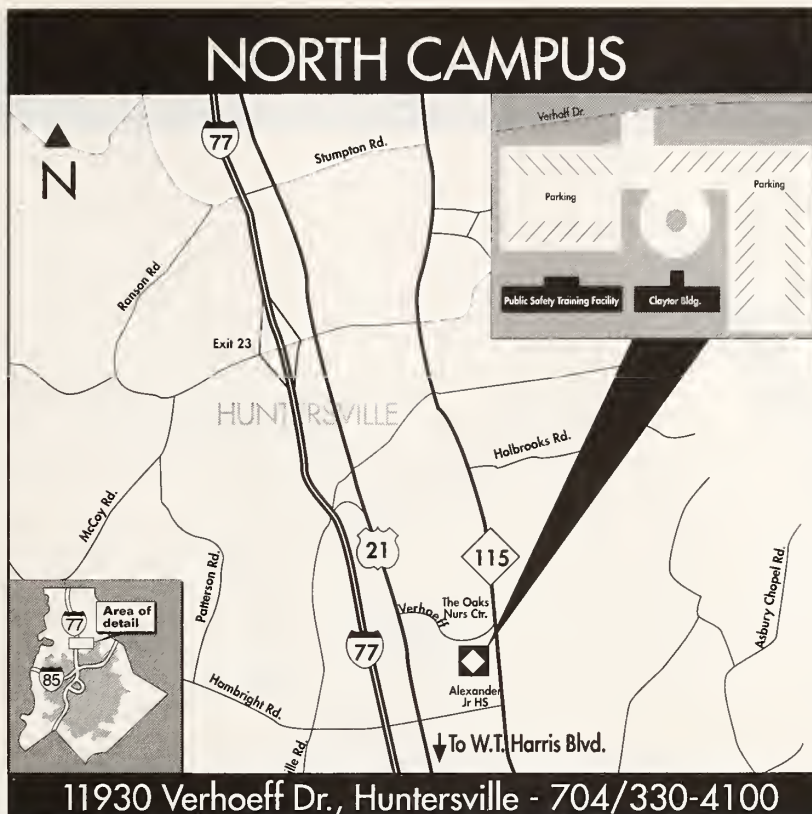
CPCC: Education that Works!

North Campus
at Huntersville
11930 Verhoeff Drive

FUTURE 2001
Northeast Campus
Harris Boulevard and Grier Road

Cityview Center
1609 Alleghany Street
at Ashley Road

Central Campus
1201 Elizabeth Avenue
at Kings Drive

FUTURE 2000
West Campus
Morris Field Drive and
Billy Graham Parkway

NEW '98
South Campus
2800 Campus Ridge Road
near Independence and 485

MECKLENBURG COUNTY

NEW '99
Southwest Campus
315 Hebron at Nations Ford Road

Corporate Training Center
Near Coliseum at 2201 Water Ridge Parkway

CPCC CENTRAL PIEDMONT COMMUNITY COLLEGE
(704) 330-CPCC
www.cpcc.cc.nc.us